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UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA, EASTERN DIVISION

SUN LAKES HIGHLAND, LLC, a
Delaware limited liability company,

Petitioner and Plaintiff,

v.

CITY OF BANNING, a municipal
corporation; SHERI FLYNN, an
individual; and DOES 1 through 10,
inclusive,

Respondents and
Defendants.

Case No. 5:24-cv-02603-DTB

VOLUME 1 PART 2 OF THE
ADMINISTRATIVE RECORD OF
PROCEEDINGS

Date: May 29, 2025 (Off Calendar)
Time: 10:00 a.m.
Crtrm.: 4
Judge: Hon. David T. Bristow

Action Filed: December 6, 2024
Second Amended Petition Filed: March
31, 2025

DRAFT ENVIRONMENTAL IMPACT REPORT

BUTTERFIELD SPECIFIC PLAN

SCH # 2007091149

CITY OF
BANNING, CALIFORNIA



JUNE 3, 2011
AR 003493

AR000097

Draft
Butterfield Specific Plan
Subsequent
Environmental Impact Report

(Amendment and Restatement of the previously adopted Deutsch Specific Plan)

State Clearinghouse No. 2007091149

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June 3, 2011

JN 65100290

AR 003494

AR000098

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SECTION 1.0

EXECUTIVE SUMMARY

1.1 PROJECT SUMMARY

The proposed Project site (hereinafter the “Butterfield Specific Plan” or “Project”) consists of 20 existing legal lots, covering 1,522 acres, owned by Pardee Homes and an additional 21-acre lot owned by the Highland Springs County Club Owner’s Association. The site is generally located north of I-10 Freeway within the northwestern portion of the City of Banning adjacent to the City of Beaumont and unincorporated areas of the County of Riverside, within the San Gorgonio Pass, an area that links the Riverside and Perris Valleys to the Coachella Valley; refer to Exhibit 3.0-1, *Regional Vicinity Map*. Specifically, the Project is located north of Wilson Street, east of Highland Springs Road, west of Highland Home Road, north and northwest of the present terminus of Highland Home Road, and south of the unincorporated portion of Riverside County, generally north of the extended alignment of Brookside Avenue into the San Bernardino Mountain foothills; refer to Exhibit 3.0-2, *Local Vicinity Map*. The Project site is generally surrounded by unincorporated Riverside County and portions of the San Bernardino Mountains to the north and northeast, Highland Home Road, and the Banning Bench to the east, the City of Beaumont and existing residential to the east and south, Wilson Street to the south, and Highland Springs Avenue and the City of Beaumont to the west. Regional access to the Project site is via I-10, located south of the Project site. The site is currently used for intermittent livestock grazing and has been extensively disturbed by periodic discing, grazing, and contour farming.

Prior to its acquisition by Pardee Homes, the Project site was owned and entitled for development by the Deutsch Corporation. The Deutsch Specific Plan was originally approved by the City of Banning in 1985 and later amended in 1993. In August 2007, Pardee Homes submitted an application for the proposed Project - a proposed comprehensive Specific Plan Amendment, which would amend and restate the existing Deutsch Property (Banning) Specific Plan.

The Butterfield Specific Plan proposes residential, potential golf course, parks, open space, school sites, and commercial uses similar to those proposed by the previously adopted Deutsch Specific Plan; refer to Exhibit 3.0-3, *Land Use Plan*. The total acreage proposed within the Specific Plan is 1,543 acres. A maximum of 5,387 dwelling units could be developed pursuant to the Plan, resulting in a gross density over the entire site of 3.5 du/ac.

The Project proposes a total of 937.4 acres (60.8 percent) of the Specific Plan area for residential development in Planning Areas which vary in density from 3 du/ac to 18 du/ac. The residential planning areas propose a mix of conventional single-family detached homes on lots anticipated to range in size from a minimum size of 2,000 square feet for medium-density residential to a minimum average of 10,000 square feet (SF) for some low-density residential areas. In addition, multifamily housing is proposed, and clustering of housing is permitted. The average overall gross residential density of the Project is 5.7 dwelling units per acre. Residential neighborhoods

of varying densities are located throughout the proposed Project. The Project includes a Commercial Overlay on portions of Planning Areas (PAs) 3, 4, 5, 26 and 27, which could replace up to 339 DU with up to 797,365 SF of commercial use.

The Butterfield Specific Plan proposes 36.0 acres (2.3%) of the Specific Plan for general commercial land use within Planning Area 17 and 18. With the Commercial Overlay described above, any portion of these Planning Areas (PAs 3, 4, 5, 26, and 27) could be used as general commercial land uses (as an expansion of the 23 acres provided within PA 18). Not knowing if any of these PAs may be ultimately developed as commercial uses, the Draft EIR analyzed the “worst-case” scenario of 88.3 acres (5.7%) of the Specific Plan for general commercial and use. However, it is highly unlikely that all of the Planning Areas within the Commercial Overlay would be developed over the entire 88.3 acres. If the Project Applicant opts to implement the Commercial Overlay within either PAs 3, 4, 5, 26, or 27, it would require an additional discretionary approval in the form of a Conditional Use Permit (CUP) and/or Planned Unit Development (PUD).

Through the CUP/PUD process a Traffic Validation Report (TRV) will be required to verify that the Project’s total peak hour vehicle trips based on this alternative commercial use are consistent with the assumptions of the certified Specific Plan Traffic Impact Analysis.

The proposed commercial sites are anticipated to accommodate retail shops and services that would be available to residents of the proposed Project and surrounding areas. In addition, two approximately 11-acre elementary school sites are provided within the Specific Plan Project area within Planning Area 20 and 68.

The County Fire Department has indicated that an additional fire station may be required within the Butterfield development to ensure adequate provision of services and appropriate response times. Accordingly, a 1.6-acre fire station site is proposed in the southern portion of PA 60, which is otherwise designated for low-density residential development. Although the zoning exists throughout the Project to allow for a different location dependent on the needs of the Fire Department.

The Butterfield Specific Plan Open Space/Recreation component includes a potential public golf course, parks, natural and landscaped open space, and a multi-use basin/lake area in the north part of the Project. These uses total approximately 428.8 acres. A Community Center is also permitted in most of the PAs.

The Butterfield Specific Plan includes a planned backbone circulation system that would extend through the Project site and is designed to provide efficient internal circulation and appropriate linkages to the City’s existing external circulation system. The proposed Project includes the development of the following on-site infrastructure systems to accommodate the needs of the Butterfield development: storm drainage including groundwater recharge, water, sanitary sewer, recycled water, and dry utilities (electricity, natural gas, etc). In addition to the facilities and improvements proposed on and immediately adjacent to the Project site, the following off-

**BUTTERFIELD SPECIFIC PLAN
Draft Subsequent EIR**

1.0 EXECUTIVE SUMMARY

site infrastructure improvements are proposed: circulation, water supply and distribution, recycled water, drainage and sewer system improvements.

The Butterfield Specific Plan would be developed in five primary phases over an estimated 30-year implementation period, assuming an average construction of 180 dwelling units per year. Associated infrastructure would be constructed incrementally to match the needs of development as it occurs. Mass grading of the Project site would take place in approximately four phases, combining development Phase 1 and 2 in the first mass grading phase. The development sequence is subject to change over time to respond to various factors including the cyclical nature of the housing market and other variations in demand. Individual Project Phases may overlap or be developed concurrently.

Project Phase 1 would include mass-grading of the entire golf course open space area (PAs 35 and 39) and those Planning Areas located in the southwestern corner of the Specific Plan "Phase IA" will consist of mass grading approximately 825 acres, as well as constructing the North Basin (PA 71) and Smith Creek drainage.

Within Phase 2, the Planning Areas within the southeastern corner of the Specific Plan will be developed.

Within Phase 3, the remaining Planning Areas between Brookside Ave/Highland Home Road and F Street (within the northwestern corner of the Specific Plan) will be developed. Additionally, the entirety of the North Loop Collector Street would be improved.

Within Phase 4, the Planning Areas to the east of Highland Home Road will be developed.

Within Phase 5, the planning areas north of Brookside Avenue (within the northernmost extent of the Specific Plan) will be developed.

The Project will require a variety of approvals from local, State and Federal agencies. The primary approvals (or certification) being sought at this time include a Specific Plan Amendment, General Plan Amendment and Zone Change, amendment to the existing Deutsch Specific Plan Environmental Impact Report, and amended and restated Development Agreement. The applicant anticipates submitting Tentative Tract Maps, rough grading plans, site plans and/or improvement plans for the initial project phase shortly after Specific Plan approval.

1.2 ENVIRONMENTAL IMPACT SUMMARY

The mitigation measures that follow have been updated from the previously adopted Deutsch Specific Plan Environmental Impact Report to reflect new information, changes in site conditions, new regulations and policies, and changes in the Project. The following mitigation measures replace the Deutsch Specific Plan Environmental Impact Report Mitigation Measures and comply with current regulations and professional standards.

Table 1.0-1: Environmental Impact Summary

Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
Section 4.1 – Aesthetics, Light and Glare			
Project Impacts			
4.1-1	a) Would the proposed Project have a substantial impact on a scenic vista? and/or b) Would it substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	AES -1: Development or revegetation shall be initiated within three months following initiation of mass grading or clearing activities, where feasible, so as to limit the time graded surfaces remain in their exposed state, consistent with the Specific Plan's approved landscape design guidelines and landscape plans and the provisions of Title 18.15.020 of the City's <i>Municipal Code</i> . A Revegetation Plan, addressing interim revegetation during construction and for future development areas prior to buildout, shall be submitted for City review and approval as part of each grading permit application. AES -2: The faces of all slopes shall be prepared, protected and maintained to control erosion and to reduce the visual impacts of slope grading. Slopes in excess of ten feet in height shall be graded pursuant to City Code requirements. Devices or	Less than Significant with Mitigation Incorporated

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1.0 EXECUTIVE SUMMARY

Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
		<p>procedures for erosion protections shall be installed as prescribed by State law and regulations and Title 18 of the City's <i>Municipal Code</i> and shall be maintained in operable condition by the developer during the duration of the activity for which the grading permit was issued. The use of plastic sheeting for erosion control shall be avoided except where required in emergency conditions to prevent land slippage. Preferred means of erosion and sediment control on slopes and pads shall include hydromulching, placement of straw bales and wind fencing, and the use of straw blankets and similar devices.</p> <p>AES -3: The Project developer shall maintain the site free of debris, which shall be promptly removed from the site when found at least once a quarter and at least daily during construction, and the Project developer shall monitor the site at least once a quarter and at least daily during construction to protect the site from illegal dumping.</p> <p>AES -4: The Project developer and its successor(s) in interest inclusive of the HOA or Landscape Lighting and Maintenance District, if any, shall maintain perimeter walls, fencing, irrigation, and landscape in a satisfactory condition at all times. Parkways and other landscape features visible from the public right of way shall be maintained free of weeds and trash and graffiti shall be promptly removed.</p> <p>AES-5: Rough Grading Plans, including a sheet detailing the location of the construction staging, shall be approved by the City Engineer, prior to grading permit issuance. The sheet pertaining to the</p>	

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		<p>construction staging shall include the following provisions:</p> <ul style="list-style-type: none"> • The construction equipment and supply staging areas shall be at least 500 feet from the nearest residence off site. Staging areas shall be screened where feasible. • During construction and grading, the construction contractor shall keep the site clear of all trash, weeds, and debris. Compliance with this measure is subject to periodic City inspections. • The grading contractor shall minimize creation of large stockpiles of soil (in terms of height) to minimize visual impacts pursuant to the provisions of the grading and/or stockpile permit issued by the City Engineer pursuant to the provisions of MC Section 18.09, <i>Grading Permit Requirements</i>, and the requirements of the City Engineer. • All temporary security lighting shall be designed and located so as to avoid intrusive effects on adjacent properties. Proper lighting techniques to direct light onsite and away from other properties shall be required to reduce light and glare impacts (including directional lighting away from reflective surfaces, use of non-reflective glass, low-intensity lighting, use of lighting baffles, and use of appropriate types of lighting fixtures). <p>AES-6: As part of the final design, improvement plan and grading plan review and approval process, the applicant shall design plans to preserve the existing oak tree along Highland Springs Avenue (or in the event preservation is not feasible, relocate or replace at</p>	

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		suitable size).	
4.1-2	Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?	<p>Refer to Mitigation Measures AES-2, 3, 5, and 6 above.</p> <p>[The faces of all slopes shall be prepared, protected and maintained to control erosion and to reduce the visual impacts of slope grading. The Project developer shall maintain the site free of debris and illegal dumping, which shall be promptly removed from the site. Rough Grading Plans, including a sheet detailing the location of the construction staging, shall be approved by the City Engineer, prior to grading permit issuance. The applicant shall design plans to preserve (or in the event preservation is not feasible, to relocate or replace at suitable size) the existing oak tree along Highland Springs Avenue.]</p>	Less than Significant with Mitigation Incorporated
4.1-3	Would the proposed project create a new source of substantial light or glare, which would adversely affect day and nighttime views in the area?	<p>Refer to Mitigation Measure AES 5.</p> <p>[Rough Grading Plans, including a sheet detailing the location of the construction staging, shall be approved by the City Engineer, prior to grading permit issuance. Additionally, all temporary security lighting shall be designed and located so as to void intrusive effects on adjacent properties.]</p> <p>AES-7: Prior to issuance of building permits, architectural plans, including detailed lighting specifications, shall be submitted for the review and approval by the City of Banning Community Development Director. The specifications shall be consistent with lighting standards included in the Specific Plan and shall meet or exceed the lighting standards contained in the City's <i>Municipal Code</i>. The lighting plans must demonstrate the</p>	Significant and Unavoidable

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		<p>following to the satisfaction of the City of Banning Community Development Director:</p> <ul style="list-style-type: none"> • Use of low-sodium lamps of 4,050 lumens or less where feasible, to provide for adequate public safety and security; • A lighting standard that is shielded to direct illumination downward and to limit casting light and glare on adjacent properties; • Exterior lighting, including street lights, landscape lighting, parking lot lighting, and lighting of the interior of parks and trails shall be sufficient to establish a sense of well-being for the pedestrian and sufficient to facilitate recognition of persons at a reasonable distance. Type (lighting standard) and placement of lighting shall be to the satisfaction of the Community Development Director or designee and shall be consistent with the requirements of the City's most current lighting ordinance and the standards of the Specific Plan ; • A minimum of one foot-candle at ground level overlap provided in all exterior doorways and vehicle parking areas, and on outdoor pedestrian walkways presented on a photometric plan; and • Outdoor light fixtures that are not covered by the Specific Plan's lighting standards shall be subject to the City of Banning <i>Municipal Code</i>. 	
Section 4.1 – Aesthetics, Light and Glare			
Cumulative Impacts			

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
	Aesthetics	<p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as City of Banning and City of Beaumont General Plan EIR Mitigation Measures, in addition to current City codes (e.g., Chapter 17.08.240 – Site Planning, 18.12.180 – Hillside Grading, Chapter 18.12.040 – Grading Requirements – Landscape Architect, etc.) and design guidelines contained in this Specific Plan and other Specific Plan documents for nearby projects (e.g., Tournament Hills, Four Seasons, Oak Valley, Sundance, etc.).</p> <p>Refer to City of Banning General Plan EIR Visual Resources Mitigation Measures A, B, C, D, E, F, G, and H.</p> <p>Also, refer to Mitigation Measures AES-1 through AES-6.</p>	Less than Significant with Mitigation Incorporated
	Light and Glare	<p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as City of Banning and City of Beaumont General Plan EIR Mitigation Measures, in addition to current City codes (e.g., Chapter 17.24.100 - Lighting, etc.) and design guidelines contained in this Specific Plan and Specific Plan and design guidelines for nearby projects.</p> <p>Refer to City of Banning General Plan EIR Visual Resources Mitigation Measures E and G.</p> <p>Also, refer to Mitigation Measure AES-7.</p>	Significant and Unavoidable (Cumulative)
Section 4.2 – Agricultural Resources			
Project Impacts			
4.2-1	Would the project convert	None required.	Less Than Significant

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	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?		
4.2-2	Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?	None required.	Less Than Significant
4.2-3	Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	None required.	Less Than Significant
Section 4.2 – Agricultural Resources			
Cumulative Impacts			

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
	Agricultural Resources	The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as City of Banning and City of Beaumont General Plan EIR Mitigation Measures, in addition to Williamson Act requirements and City codes (Title 17). Refer to City of Banning General Plan EIR Land Use Mitigation Measure C.	Less than Significant
Section 4.3 – Air Quality			
Project Impacts			
4.3-1	Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<p>AQ-1: Prior to issuance of any Grading Permit, the Director of Public Works and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, in accordance with SCAQMD Rule 402, the Applicant shall implement dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Implementation of the following measures are required:</p> <ul style="list-style-type: none"> • All active portions of the construction site shall be watered at least twice daily to prevent excessive amounts of dust; • On-site vehicle speed shall be limited to 15 miles per hour; • All on-site roads shall be paved where feasible, watered as needed, or chemically stabilized; • Visible dust beyond the property line which emanates from the project shall be prevented to the maximum extent feasible; 	Significant and Unavoidable

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		<ul style="list-style-type: none"> All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site; Track-out devices shall be used at all construction site access points; All delivery truck tires shall be watered down and/or scraped down prior to departing the job site; and Replace groundcover on disturbed areas quickly. <p>AQ-2: All trucks that are to haul excavated or graded material on-site shall comply with State Vehicle Code Section 23114 (Spilling Loads on Highways), with special attention to Sections 23114(b)(F), (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads. Prior to the issuance of grading permits, the Applicant shall coordinate with the appropriate City of Banning Engineer on hauling activities compliance.</p> <p>AQ-3: Prior to the issuance of building permits, the City building official shall confirm that construction plans and specifications include the following measures, which shall be implemented to reduce ROG emissions resulting from application of architectural coatings:</p> <ul style="list-style-type: none"> Contractors shall use high-pressure-low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent; 	

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		<ul style="list-style-type: none"> Coatings and solvents with a ROG content lower than required under Rule 1113 shall be used; Construction and building materials that do not require painting shall be used to the extent feasible; and Pre-painted construction materials shall be used to the extent feasible. <p>AQ-4: Prior to issuance of any Grading Permit, the Director of Public Works and the Building Official shall confirm that the Grading Plan, Building Plans and specifications stipulate that, in compliance with SCAQMD Rule 403, ozone precursor emissions from construction equipment vehicles shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturer's specifications, to the satisfaction of the City Engineer. A set of maintenance records shall be provided to the City before grading commences. The City Inspector shall be responsible for ensuring that contractors comply with this measure during construction.</p> <p>AQ-5: Prior to issuance of any Grading Permit, the grading plan shall indicate dust management measures for review and approval by the City Engineer, to identify viable dust control measures and include a monitoring plan to be implemented throughout the construction phases of the Specific Plan. In accordance with the Specific Plan and City's <i>Municipal Code</i>, the dust management measures shall minimize wind-blown particles by including:</p> <p>a) All applicable mitigation measures identified in this EIR</p>	

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		<p>(related to dust control) and otherwise required by the City or SCAQMD;</p> <p>b) An erosion and sediment control plan to minimize wind or waterborne transport of soil onto adjacent properties, streets, storm drains, or drainages; and</p> <p>c) A Revegetation Plan to address interim conditions between initial grading and final site development. The Revegetation Plan, although focused on the control of wind and water erosion, shall consider compatibility with fuel modification zone requirements, drought tolerant landscape requirements, and potential ongoing livestock grazing. Special techniques such as wind fences shall also be considered, to minimize surface soil and dust during high wind events.</p> <p>AQ-6: GPS-controlled “machine-guided grading”, or other equivalent grading techniques, shall be incorporated into Project grading plans, subject to review and approval by the City Engineer. This technology will be utilized on mass grading activities where deemed feasible, and shall be used where feasible on subsequent rough or fine grading activities.</p> <p>AQ-7: The following measures shall be implemented during construction to substantially reduce NO_x related emissions. They shall be included in the Grading Plan, Building Plans, and specifications.</p> <ul style="list-style-type: none"> Off-road diesel equipment operators shall be required to shut down their engines rather than idle 	

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		<p>for more than five minutes, and shall ensure that all off-road equipment is compliant with the CARB in-use off-road diesel vehicle regulation and SCAQMD Rule 2449.</p> <ul style="list-style-type: none"> • The following note shall be included on all grading plans: "The City shall require construction contractors to utilize diesel powered construction equipment that meets EPA-Certified Tier III emissions standards, or higher according to the following:: • January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards at a minimum. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. • Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the 	

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		<p>contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.</p> <ul style="list-style-type: none"> • A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. • Encourage construction contractors to apply for AQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for AQMD "SOON" funds. The "SOON" program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm • The contractor and applicant, if the applicant's equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions. • Low sulfur fuel for stationary construction equipment shall be required. This is required by SCAQMD Rules 431.1 and 431.2. 	

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		<ul style="list-style-type: none"> Existing power sources (i.e., power poles) shall be used when available. Construction parking shall be located on-site where possible and shall be configured to minimize traffic interference. Obstruction of through-traffic lanes shall be minimized by providing temporary traffic controls such as flag persons, cones and/or signage during all phases of construction when needed to maintain smooth traffic flow. Construction shall be planned so that lane closures on existing streets are kept to a minimum. Construction operations affecting traffic shall be scheduled for off-peak hours to the extent feasible. Develop a traffic plan to minimize traffic flow interference from construction activities. The plan shall specify the times during which construction activities will occur and particular times when travel lanes cannot be blocked (e.g., peak traffic periods as directed by the affected City Engineer). The plans shall provide details regarding the placement of traffic control, warning devices and detours. As a supplement to the traffic plan, the construction contractor shall coordinate with the affected agency to determine the need for a public information program which would inform area residents, employers and business owners of the details concerning construction schedules and expected 	

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		<p>travel delays, detours, and blocking of turning movements lanes at intersections. The public information programs could utilize various media venues (e.g., newspaper, radio, television, telephone hot lines, internet website, etc.) to disseminate information such as:</p> <ul style="list-style-type: none"> • Overview of project information • Weekly updates on location of construction zones; • Identification of street(s) affected by construction; • Times when construction activities will occur and when traffic delays, and blockage of intersection turning movements can be expected; and • Identification of alternate routes which could be use to avoid construction delays. <p>Also, refer to Mitigation Measures GHG-1 through GHG-2.</p> <p>[Tract maps, building permits, improvement plans, landscape plans and/or grading plans shall require green building practices, such as water conservation measures (e.g., California Energy Conservation compliant fixtures, low-flush toilets, weather-based computerized irrigation systems, drought-tolerant vegetation, public information for residence regarding low-water landscaping, pool covers), energy, water, and recycling measures (e.g., energy-efficient appliances and indoor lighting, water-efficient plumbing and smart controllers for landscaping, and integrated recycling in residential home design, carbon sequestration, green education programs, energy-efficient outdoor lighting and pool pumps and motors, and preferred parking</p>	

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		for EVs and CNG vehicles and charging facilities), solid waste measures (e.g., reuse and recycle construction and demolition, interior and exterior storage areas for recyclables and green waste), and transportation and motor vehicle measures (e.g., limited idling requirements, ride share programs, adequate bicycle parking). The Specific Plan shall also allow for rooftop solar on all structures, electric vehicle charging stations at commercial, park, golf course, multifamily residential and school areas, and hydrogen vehicle fueling stations within the Commercial zones.]	
4.3-2	Would the project expose sensitive receptors to substantial pollutant concentrations?	None required.	Less Than Significant
4.3-3	Would the project conflict with or obstruct implementation of the applicable air quality plan?	Refer to Mitigation Measures AQ-1 through AQ-7. [Grading Plans, Building Plans, and specification shall stipulate that excessive fugitive dust shall be controlled by regular watering. In addition, SCAQMD Rule 402 requires implementation dust suppression techniques to prevent fugitive dust. All haul trucks shall prevent excavated and graded materials from spilling onto public roadways. Construction plans shall be implemented to reduce ROG emissions resulting from application of architectural coatings. Ozone precursor emission from construction equipment vehicles shall be controlled by maintaining equipment engines in good condition and in proper tune. The Grading Plans shall indicate dust management measures to minimize wind-blown particle. GPS-controlled "machine-guided grading" or other equivalent grading techniques shall be	Criteria 1: Significant and Unavoidable with Mitigation Incorporated Criteria 2: Less than Significant with Mitigation

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		<p>incorporated into Project grading plans. Grading Plans, Buildings Plans and specifications shall require measures during construction to substantially reduce NO_x related emissions (e.g., reduced idle times, use of existing power sources, minimization of obstruction of through-traffic lanes, etc.).]</p> <p>Also, refer to Mitigation Measures GHG-1 through GHG-3.</p> <p>[Tract maps, building permits, improvement plans, landscape plans and/or grading plans shall require green building practices, such as water conservation measures (e.g., California Energy Conservation compliant fixtures, low-flush toilets, weather-based computerized irrigation systems, drought-tolerant vegetation, public information for residence regarding low-water landscaping, pool covers), energy, water, and recycling measures (e.g., energy-efficient appliances and indoor lighting, water-efficient plumbing and smart controllers for landscaping, and integrated recycling in residential home design, carbon sequestration, green education programs, energy-efficient outdoor lighting and pool pumps and motors, and preferred parking for EVs and CNG vehicles and charging facilities), solid waste measures (e.g., reuse and recycle construction and demolition, interior and exterior storage areas for recyclables and green waste), and transportation and motor vehicle measures (e.g., limited idling requirements, ride share programs, adequate bicycle parking). The Specific Plan shall also allow for rooftop solar on all structures, electric vehicle charging stations at commercial, park, golf course, multifamily residential and school areas, and hydrogen vehicle fueling stations within the Commercial zones. Lastly, tract maps, grading plans, site plans, and/or improvement plans shall indicate appropriate transit provisions along arterial streets, including bus stops.]</p>	

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4.3-4	Would the project result in the creation of objectionable odors affecting a substantial number of people?	<p>Refer to Mitigation Measure AQ-7.</p> <p>[Grading Plans, Buildings Plans and specifications shall require measures during construction to substantially reduce NO_x related emissions (e.g., reduced idle times, use of existing power sources, minimization of obstruction of through-traffic lanes, etc.).]</p> <p>AQ-8 Construction and implementation of the wastewater treatment plan shall require a Conditional Use Permit (CUP) to be approved by the City of Banning, as well as design review of the proposed site plan and building architecture, landscaping and lighting.</p>	Less Than Significant with Mitigation Incorporated.
Section 4.3 – Air Quality			
Cumulative Impacts			
	Air Quality	<p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as compliance with existing regulations (i.e., National Ambient Air Quality Standards, California Ambient Air Quality Standards), City of Banning and City of Beaumont General Plan EIR Mitigation Measures, the SCAQMD 2007 <i>Air Quality Management Plan for the South Coast Basin</i>, SCAG <i>Regional Comprehensive Plan and Guide</i>, permit conditions, and mitigation measures.</p> <p>Refer to City of Banning General Plan EIR Air Quality Mitigation Measures A, B, C, E, F, G, H, I, J, K, M, O, P, Q, R, S, and T.</p>	Significant and Unavoidable (Cumulative)

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		Also, refer to Mitigation Measures AQ-1 through AQ-8.	
Section 4.4 – Biological Resources			
Project Impacts			
4.4-1	Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS)?	<p>BIO-1 Prior to the commencement of grading during the nesting season (approximately mid-February through mid-August), all suitable habitat shall be surveyed for the presence of nesting birds by a qualified biologist prior to site disturbance. Should any active nests be located, construction must comply with Migratory Bird Treaty Act requirements, including an adequate construction buffer around active nests or avoiding construction during the nesting season if an adequate buffer is infeasible.</p> <p>BIO-2 A preconstruction clearance survey for burrowing owl will be performed within 30 days prior to ground disturbance in potentially suitable habitat within the site, pursuant to CDFG protocols. The preconstruction survey will include a 300-foot buffer if between February 1 and August 31 (nesting season) and a 100-foot buffer if outside of this period. If owls are found within the survey area during the nesting season, construction activities will not occur within 300 feet of the occupied burrows until nesting is completed. A qualified biologist must confirm that the nesting effort has been completed prior to the removal of the work buffer restriction. If owls are found within the disturbance footprint outside of the February 1 through August 31 period, passive relocation (e.g. use of one way doors and collapse of burrows) will occur. These surveys and mitigation for burrowing owl are consistent with Section 6.3.2, <i>Additional</i></p>	Less Than Significant with Mitigation Incorporated

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		<i>Survey Needs and Procedures</i> of the MSHCP.	
4.4-2	<p>Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS? and</p> <p>Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</p>	<p>BIO-3</p> <p>The applicant shall provide compensatory mitigation for the temporary disturbance to CDFG jurisdictional waters, which includes approximately 0.41 acre of vegetated riparian habitat, and the temporary disturbance to Regional Board and Corps jurisdiction, none of which consists of jurisdictional wetlands:</p> <p>The mitigation requirements will be determined through applicable regulatory permitting programs of CDFG, RWQCB, and USACE, and shall consist of minimum 1:1 mitigation primarily through onsite restoration within the Smith Creek drainage and other onsite areas, which will be performed concurrently with development of the golf course (PAs 35 and 39) or alternative uses within these PAs, include various combinations of parks, trails, native habitat, drainage facilities, water quality improvements, groundwater recharge areas, and wetland mitigation areas.</p>	Less Than Significant with Mitigation Incorporated
4.4-3	Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural	<p>Refer to Mitigation Measures BIO 1 through BIO-3.</p> <p>[Prior to the commencement of grading, all suitable habitat shall be surveyed for the presence of nesting birds. In addition, a preconstruction clearance</p>	Less Than Significant with Mitigation Incorporated

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	Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<p>survey for burrowing owl will be performed. The applicant shall provide compensatory mitigation for the temporary disturbance of CDFG, RWQCB, and USACE jurisdictional waters which include approximately 0.41 acres of vegetated riparian habitat.]</p> <p>BIO-4 Prior to the issuance of the grading permits the developer shall complete and submit all required protocol and habitat assessment studies required to demonstrate compliance with the MSHCP. Specifically, a DBESP (Determination of Biologically Equivalent or Superior Preservation), following approval of all required permits for the CDFG and USACE, shall be prepared, which shall be reviewed by the CDFG and USFWS and approved by City staff, in compliance with Section 6.1.2 of the MSHCP. The applicant shall implement the approved DBESP as a condition of the issuance of a grading permit and comply with all biological mitigation measures contained within the DBESP.</p> <p>BIO-5 The following mitigations shall be incorporated into the construction plans and specifications to minimize any potentially adverse construction impacts:</p> <ul style="list-style-type: none"> Construction areas will be watered regularly to control dust and minimize impacts to adjacent vegetation and wildlife habitat. Short-term stream diversions will be accomplished by use of gravel bags or other methods that will result in minimal in-stream impacts. Short-term diversions will be evaluated through the riparian/riverine component of 	

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		<p>the MSHCP Consistency analysis (Section 6.1.2) (refer to Mitigation Measure BIO-4) which will require a DBESP analysis to be prepared. In addition the 401, 404, and 1602 permitting processes will evaluate short-term impacts relative to stream diversions. All biological mitigation measures contained within the 401, 404 and 1602 approval conditions and DBESP shall be implemented pursuant to BIO-3 and BIO-4, respectively, which typically require 1:1 onsite restoration. Any mitigation beyond the 1:1 restoration of the original stream will be mitigated onsite through negotiations with CDFG, RWQCB, and USACE.</p> <ul style="list-style-type: none"> • Equipment storage, fueling and staging areas will be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types. • The limits of jurisdictional disturbance, including the upstream, downstream along Smith Creek and lateral extents that are tributaries to Smith Creek, will be clearly defined and marked in the field. Monitoring personnel will review the limits of disturbance prior to initiation of construction activities. • During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the Project footprint will be avoided. • Exotic, weedy plant species removed during construction will be properly handled to prevent 	

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		<p>sprouting or re-growth.</p> <ul style="list-style-type: none"> Waste, dirt, rubble, or trash shall not be deposited in a conservation area or on native habitat. 	
Section 4.4 – Biological Resources			
Cumulative Impacts			
	Biological Resources	<p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as compliance with existing regulations (i.e., City of Banning and Beaumont General Plan EIR Mitigation Measures, Migratory Bird Treaty Act, Clean Water Act, Federal Endangered Species Act, State Porter-Cologne Act, California Department of Fish and Game Code, City code, and the Riverside County MSHCP), permit conditions, and mitigation measures BIO-1 through BIO-5.</p> <p>Refer to City of Banning General Plan EIR Biological Resources Mitigation Measures A, C, D, E, I, and K.</p> <p>Also, refer to Mitigation Measures BIO-1 through BIO-5.</p>	Less than Significant with Mitigation Incorporated
Section 4.5 – Climate Change			
4.5-1	Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<p>GHG emissions have the potential to adversely affect the environment because they contribute, on a cumulative basis, to global climate change. The construction and operation of the Project would contribute incrementally to GHG emissions. Therefore, project impacts of GHG emissions are analyzed on a cumulative basis.</p> <p>GHG-1 Prior to the issuance of building permits, the following measures shall be reflected on applicable tract maps, building permits,</p>	Potentially Significant and Unavoidable with Mitigation Incorporated

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		<p>improvement plans, landscape plans and/or grading plans:</p> <p>a) Green Building Practices</p> <p>1) Water Conservation – All appliances such as showerheads, lavatory faucets and sink faucets shall comply with efficiency standards set forth in Title 20, California Administrative Code Section 1604(f). Title 24 of the California Administrative Code Section 1606(b) prohibits the installation of fixtures unless the manufacturer has certified to the California Energy Conservation compliance with the flow rate standards.</p> <p>2) Water Conservation – Low-flush toilets shall be installed as specified in California State Health and Safety Code Section 17921.3 and the County Green Building Ordinance [as applicable in Riverside County].</p> <p>3) Water Conservation – All common area irrigation areas shall be capable of being operated by a computerized irrigation system which includes an on-site weather station/ET gage capable of reading current weather data and making automatic adjustments to independent run times for each irrigation valve based on changes in temperature, solar radiation, relative humidity, rain and wind. In addition, the computerized irrigation system shall be equipped with flow sensing capabilities, thus automatically shutting down the irrigation system in the event of a mainline break or broken head. All common area irrigation controllers shall also include a rain-</p>	

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		<p>sensing automatic shutoff.</p> <p>4) Water Conservation – Common-area landscaping shall emphasize drought-tolerant vegetation. Plants of similar water use shall be grouped to reduce over-irrigation of low-water-using plants. Those areas not designed with drought-tolerant vegetation shall be gauged to receive irrigation using the minimal requirements.</p> <p>5) Water Conservation – Residential occupants shall be informed as to the benefits of low-water-using landscaping and sources of additional information related to water conservation documents.</p> <p>6) Water Conservation – Community Center or Recreational Facilities with a pool amenity shall be conditioned to provide and use a pool cover to reduce water evaporation and retain heat.</p> <p>7) Water Conservation – Water conservation standards shall be noted in the Tier 1 measures of the 2010 California Green Building Standards.</p> <p>8) Energy, Water, and Recycling –</p> <p>The builder shall be conditioned to provide the following:</p> <ul style="list-style-type: none"> • Energy efficient appliances; • Energy efficient indoor lighting 	

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		<ul style="list-style-type: none"> Water efficient smart controllers for landscaping Water efficient plumbing in all buildings Integrate recycling into residential home design. Create areas in the home to promote recycling (additional trash cans in cabinets, etc.) Energy Efficiency standards shall be as noted in the Tier 1 measures of the 2010 California Green Building Standards. <p>9) Carbon Sequestration – The builder shall plant an average of approximately 40 trees per landscaped acre (where landscaping is provided) as a means to capture (sequester) carbon dioxide emissions and to provide shade to the buildings, which can decrease the need for air conditioning.</p> <p>10) Green Education Program - In order to increase awareness of green building practices and to promote water and energy conservation, the builder(s) shall develop and implement a green educational program. The program shall include but not necessarily be limited to a pamphlet that educates and promotes conservation practices that homeowners can implement, with specific guidance on landscaping with drought tolerant plants, use of efficient irrigation systems, compact florescent lighting, and other measures that help lower GHG emissions.</p> <p>11) Energy Efficient Outdoor Lighting – Lighting for public streets, parking areas, and recreation areas shall utilize energy efficient light and mechanical, computerized or photo cell</p>	

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		<p>switching devices to reduce unnecessary energy usage.</p> <p>12) Energy Conservation – Community Center or Recreational Facilities with a pool amenity shall be conditioned to install energy-efficient pumps and motors, such as variable speed motors.</p> <p>b) Solid Waste Measures</p> <p>1) Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).</p> <p>2) Shall comply with state model ordinance AB 1327, Chapter 18 California Solid Water Reuse and Recycling Access Act of 1991, which requires interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.</p> <p>c) Transportation and Motor Vehicles</p> <p>1) Limit idling time for commercial vehicles, including delivery and construction vehicles, pursuant to applicable SCAQMD and City requirements.</p> <p>2) Promote ride sharing programs e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a web</p>	

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		<p>site or message board for coordinating rides. The actual percentage of potential ride sharing vehicle spaces will be determined in coordination with the City Planning Director or designee based on square footage and use type (e.g., shopping center, office, fitness center, etc.) prior to approval of a site plan within the commercial land use Planning Areas.</p> <p>3) Provide adequate bicycle parking near non-residential building entrances to promote cyclist safety, security, and convenience. Provide facilities that encourage bicycle commuting (e.g., locked bicycle storage or covered or indoor bicycle parking).</p> <p>4) All golf carts and Neighborhood Electric Vehicles (NEVs) shall be electrical powered only.</p> <p>GHG-2</p> <p>The Butterfield Specific Plan shall be conditioned to allow the following uses (as reflected on future tract maps and commercial site plans), to further promote renewable energy resources, including:</p> <p>a) Allowing rooftop solar on all structures, subject to City Municipal Code and related building permit provisions;</p> <p>b) Allowing electric vehicle charging stations at all commercial, park, golf course, multi-family residential, and school areas, subject to a Conditional Use Permit; and</p>	

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		<p>c) Allowing hydrogen vehicle fueling stations within the Commercial zone, subject to a Conditional Use Permit.</p> <p>GHG-3 As part of future tract map, grading plan, site plan and/or improvement plan submittals, the Applicant shall identify bus stop provisions along arterial streets, through consultation with the City Engineer and Banning Pass Transit, including stops on Highland Springs Road, Wilson Street, Highland Home Road, and F Street as determined appropriate.</p> <p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as City of General Plan EIR Mitigation Measures regarding air quality. Refer to City of Banning General Plan EIR Air Quality Mitigation Measures A, B, C, G, H, I, J, K, M, O, Q, R, S, and T.</p>	
4.5-2	Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<p>Refer to Mitigation Measures GHG-1 through GHG-3 above.</p> <p>Refer to City of Banning General Plan EIR Air Quality Mitigation Measures A, B, C, G, H, I, J, K, M, O, Q, R, S, and T.</p>	Potentially Significant and Unavoidable with Mitigation Incorporated
Section 4.6 – Cultural Resources			
Project Impacts			
4.6-1	Would the project directly	CUL - 1: The Project Applicant shall prepare a paleontological resource	Less Than Significant

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	or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<p>impact mitigation program (PRIMP) for the grading and excavation phase of the Project, including both on- and off-site activities. The PRIMP shall be submitted for review and approval prior to issuance of any grading permit, and shall conform to the guidelines of the County of Riverside and the Society of Vertebrate Paleontology; including the following:</p> <ul style="list-style-type: none"> A trained paleontological monitor shall be present during initial mass grading or deep trenching activities within the Project in sediment areas determined likely to contain paleontological resources. If paleontological resources are located within excavation, the monitoring program will change to full-time. The monitor shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. The monitor shall be equipped to rapidly remove any large fossil specimens encountered during excavation. During monitoring, samples shall be collected and processed to recover microvertebrate fossils. Processing shall include wet screen washing and microscopic examination of the residual materials to identify small vertebrate remains. Upon encountering a large deposit of bone, salvage of all bone in the area shall be conducted with additional field staff and in accordance with modern paleontological techniques. 	with Mitigation Incorporated

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		<ul style="list-style-type: none"> All fossils collected during the Project shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of all material collected and identified shall be provided to the museum repository along with the specimens. A report documenting the results of the monitoring and salvage activities and the significance of the fossils will be prepared. All fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository for permanent curation and storage. 	
4.6-2	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	CUL-2: Prior to the issuance of a grading permit, an archaeological resource monitoring plan shall be developed by a qualified archaeologist. This plan shall include a grading observation schedule, to be maintained when initial mass grading occurs in upper soils, to identify and further evaluate any cultural resources that may be discovered in the Project area. A qualified archaeologist shall be retained to attend pre-grading meetings and to monitor earth moving activities, including clearing, grubbing, cutting, and trenching at the site. The archaeologist shall carefully inspect these areas to assess the potential for significant prehistoric or historic remains. If potential archaeological and historical resources are uncovered, the construction contractor shall cease grading	Less Than Significant with Mitigation Incorporated

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		<p>operations in the vicinity of the find until further evaluation is undertaken to assess the discovery. Further subsurface investigation may be needed if the resource is determined unique or important for its prehistoric or historic information.</p> <p>CUL-3: All earthmoving activity occurring within 30 meters of the on-site refuse scatter (LSA-PDH0601-H-2) shall be monitored by a qualified archaeologist. If archaeological remnants are discovered during monitoring, the archaeologist shall have the authority to divert construction in order to assess the significance of the find. Remnants shall be properly evaluated, documented, and deposited as applicable, consistent with State and local protocols.</p>	
4.6-3	Would the project cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5?	<p>Refer to Mitigation Measure CUL-3.</p> <p>[All earthmoving activity occurring within 30 meters of the onsite refuse scatter shall be monitored by a qualified archaeologist. If remnants are discovered, the archaeologist shall have the authority to divert construction, and remnants shall be evaluated, documented and deposited.]</p>	Less Than Significant with Mitigation Incorporated
4.6-4	Would the project result in the disturbance of any human remains, including those interred outside of	<p>Refer to Mitigation Measure CUL-2.</p> <p>[Prior to the issuance of a grading permit, an archaeologist resource monitoring plan shall be developed by a qualified archeologist, and shall</p>	Less Than Significant with Mitigation Incorporated

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	formal cemeteries?	<p>include a grading conversation schedule for initial mass grading of upper soils.]</p> <p>CUL-4: If previously unknown cultural resources, including human remains, are identified during grading activities, a qualified archaeologist shall be retained to assess the nature and significance of the find. If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner shall be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.</p>	
Section 4.6 – Cultural Resources			
Cumulative Impacts			
	Cultural Resources	The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as compliance with the National Historic Preservation Act, City of Banning and City of Beaumont General Plan EIR Mitigation Measures, City code (i.e., Chapter 17.24.070 -	Less than Significant with Mitigation Incorporated

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		<p>Environmental Resources/Constraints), permit conditions, and mitigation measures.</p> <p>Refer to City of Banning General Plan EIR Cultural Resources Mitigation Measures A and B.</p> <p>Also, refer to Mitigation Measures CUL-1 through CUL-4.</p>	
Section 4.7 – Geology, Soils, and Seismicity			
Project Impacts			
4.7-1	<p>Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>i) Rupture of a known earthquake faults, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, or a County of Riverside designated Fault</p>	<p>GEO-1: All structures on the Project site shall be constructed pursuant to the most current applicable seismic standards, as determined by the City as part of the tract map, grading plan, and building permit review processes, with building setbacks as recommended by the Project's Seismic Hazard Analysis (Geocon 2005). Design criteria developed for Project structures shall also be based on the most current standards of practice and design parameters suggested by the Structural Engineers Association of California based on the recommendations and amendments to the CBC by the Division of State Architect for specific types of buildings and occupancies.</p> <p>GEO-2: A detailed analysis of site geotechnical conditions, field investigation and slope stability analyses shall be conducted as 40-scale grading plans for mass and fine grading are prepared in the course of the phased development of the Project site. These studies shall be submitted to the City Building Department or Building Official, and their recommendations incorporated into</p>	Less Than Significant with Mitigation Incorporated

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	<p>Hazard Area, or a County of Riverside designated Potential Fault Hazard Area?</p> <p>Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>ii) Strong seismic ground shaking?</p> <p>Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>iii) Seismic-related ground failure, including liquefaction; subsidence, and</p>	<p>Project design to the satisfaction of the City Engineer, prior to the issuance of any grading permits, including those for mass grading, in areas where slopes of 10 feet or more in height are anticipated and/or where evidence of debris flows or past landslides is found.</p> <p>GEO-3 The Project site shall be constructed pursuant to the following mitigation measure contained in the City of Banning General Plan EIR, Geotechnical Element:</p> <ul style="list-style-type: none"> During the site grading, all existing vegetation and debris shall be removed from areas that are to receive compacted fill. Any trees to be removed shall have a minimum of 95 percent of the root systems extracted. Man-made objects shall be over excavated and exported from the site. Removal of unsuitable materials may require excavation to depths ranging from 2 to 4 feet or more below the existing site grade. All fill soil, whether on site or imported, shall be approved by the individual Project soils engineer prior to placement as compaction fill. All fill soil shall be free from vegetation, organic material, cobbles and boulders greater than 6 inches in diameter, and other debris. Approved soil shall be placed in horizontal lifts or appropriate thickness as prescribed by the soils engineer and watered or aerated as necessary to obtain near-optimum moisture-content. Fill materials shall be completely and uniformly 	

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	<p>lateral spreading?</p> <p>Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>iv) Landslides?</p>	<p>compacted to not less than 90 percent of the laboratory maximum density, as determined by American Society for Testing and Materials (ASTM) Test Method D-1557-78, or equivalent test method acceptable to the City Building Department. The project soils engineer shall observe the placement of fill and take sufficient tests to verify the moisture content, uniformity, and degree of compaction obtained. In-place soil density should be determined by the sand-cone method, in accordance with ASTM Test Method D1556-64 (74), or equivalent test method acceptable to the City Building Department.</p> <ul style="list-style-type: none"> • Finish cut slopes generally shall not be inclined steeper than 2:1 (horizontal to vertical). Attempts to excavate near-vertical temporary cuts for retaining walls or utility installation in excess of 5 feet may result in gross failure of the cut and may possibly damage equipment and injure workers. All cut slopes must be inspected during grading to provide additional recommendations for safe construction. • Finish fill slopes shall not be inclined steeper than 2:1 (horizontal to vertical). Fill slope surfaces shall be compacted to 90 percent of the laboratory maximum density by either overfilling and cutting back to expose a compacted core or by approved mechanical methods. • Foundation systems that utilize continuous and spread footings are recommended for the support of 	

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		<p>one- and two-story structures. Foundations for higher structures must be evaluated based on structure design and on-site soil conditions.</p> <ul style="list-style-type: none"> Retaining walls shall be constructed to adopted building code standards and inspected by the Building Inspector. Positive site drainage shall be established during finish grading. Finish lot grading shall include a minimum positive gradient of 2 percent away from structures for a minimum distance of 3 feet and a minimum gradient of 1 percent to the street or other approved drainage course. Utility trench excavations in slope areas or within the zone of influence of structures should be properly backfilled in accordance with the following: <ul style="list-style-type: none"> (a) Pipes shall be bedded with a minimum of 6 inches of pea gravel or approved granular soil. Similar material shall be used to provide a cover of at least 1 foot over the pipe. This backfill shall then be uniformly compacted by mechanical means or jetted to a firm and unyielding condition. (b) Remaining backfill may be fine-grained soils. It shall be placed in lifts not exceeding 6 inches in thickness or as determined appropriate, watered, or aerated to near 	

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		<p>optimum moisture content, and mechanically completed to a minimum of 90 percent of the laboratory maximum density.</p> <p>(c) Pipes in trenches within 5 feet of the top of slopes or on the face of slopes shall be bedded and backfilled with pea gravel or approved granular soils as described above. The remainder of the trench backfill shall comprise typical on-site fill soil mechanically completed as described in the previous paragraph.</p>	
4.7-2	Would the project result in substantial soil erosion or the loss of topsoil?	None	Less Than Significant
4.7-3	Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as the result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<p>Refer to Mitigation Measure GEO-2.</p> <p>[A detailed analysis of site geotechnical conditions, field investigation and slope stability analyses shall be conducted as 40-scale grading plans for mass and fine grading are prepared in the course of the phased development of the Project site. These studies shall be submitted to and approved by the City Building Department or Building Official, and their recommendations incorporated into Project design to the satisfaction of the City Engineer, prior to the issuance of any grading permits, including those for mass grading, in areas where slopes of 10 feet or more in height are anticipated and/or where</p>	Less Than Significant with Mitigation Incorporated

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		evidence of debris flows or past landslides is found.]	
4.7-4	Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property or on soils with an expansion index greater than 20 percent?	None required.	Less Than Significant
Section 4.7 – Geology, Soils, and Seismicity			
Cumulative Impacts			
	Geology, Soils, and Seismicity	<p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as compliance with the 2010 California Building Code and 2010 California Residential Code, Alquist-Priolo Earthquake Fault Zoning Act, City code (i.e., Title 18), permit conditions, and mitigation measures.</p> <p>Refer to City of Banning General Plan EIR Geology and Soils Mitigation Measures A, B, H, J, R, S, T, U, V, W, X, and Y.</p> <p>Also, refer to Mitigation Measures GEO-1 through GEO-3.</p>	Less than Significant with Mitigation Incorporated
Section 4.8 – Hazards and Hazardous Materials			
Project Impacts			
4-8-1	Would the Project create a	HAZ-1: The grading plans shall indicate methods to address potential	Less Than Significant

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	significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<p>contamination discovered during construction, as well as safety considerations for on-site construction personnel and the general public. Details of the plan shall include, but not be limited, to the following:</p> <ul style="list-style-type: none"> Procedures for identification of contaminated soil during earthmoving operations; Immediate measures to protect workers and the public from exposure to contaminated areas (e.g., fencing or hazard flagging, covering of contaminated soils with plastic, etc.) and prevent migration of the contaminants to the surrounding environment; and Steps to be taken following initial discovery of contaminated soils. Notification shall be made to the local environmental health officials and the City's construction inspector(s) immediately following identification of previously unknown contamination within the construction area. In the event hazardous substances are encountered during site grading, work shall immediately cease in the area and the property owner/developer shall retain a qualified hazardous materials engineer to assess the impacts and prepare a response plan using risk-based cleanup standards applicable to residential land use. Upon approval of the response plan by the Fire Department or other agency, as 	with Mitigation Incorporated

¹ California Stormwater Quality Association, 2009 Construction BMP Handbook, 2010, accessed from <https://www.casqa.org/casqastore/entity/tabid/169/c-4-best-management-practice-bmp-handbooks.aspx> 3.10.11

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		<p>applicable, the engineer shall obtain any required permits, oversee the removal of such features and/or conduct the response work to the satisfaction of the Fire Department or other agency, as applicable, until closure status is attained.</p> <p>HAZ-2: As part of construction specifications, procedures for the fueling and maintenance of construction vehicles shall be required to minimize the potential for accidental release of hazardous materials. This shall include locating refueling and maintenance areas minimum of 500 feet from occupied residential uses. Drip plans shall be placed under motorized equipment when parked on the site to prevent soil contamination from dripping oil or other fluids.</p> <p>HAZ-3 Hazardous construction waste management practices are to be implemented pursuant to the Best Management Practices contained in the California Stormwater BMP Handbook (2009)¹ and shall include the following:</p> <ol style="list-style-type: none"> 1. All hazardous construction wastes as defined by Title 22 Division 4.5, or listed in 40 CFR Pars 110, 117, 261, or 302, including but not limited to petroleum products, concrete curing compounds, palliatives, septic wastes, stains, wood preservatives, asphalt products, pesticides, acids, paints, solvents, roofing tar, sandblasting grid mixed with lead-, cadmium-, or chromium based paints, asbestos, or PCBs, that cannot be reused or recycled shall be disposed of by a licensed 	

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		<p>hazardous waste hauler.</p> <p>2. Wastes shall be stored in sealed containers constructed of suitable material and shall be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172, 173, 178, and 179.</p> <p>3. Waste containers shall be stored in temporary containment facilities that should comply with the following requirements:</p> <p>a. Temporary containment facility shall provide for a spill containment volume equal to 1.5 times the volume of all containers able to contain precipitation from a 25 year storm event plus the greater of 10 percent of the aggregate volume of all containers or 100 percent of the largest tank within its boundary, whichever is greater.</p> <p>b. Temporary containment facility shall be impervious to the materials stored there for a minimum contact time of 72 hours.</p> <p>c. Temporary containment facilities shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be placed into drums after each rainfall. These liquids shall be handled as a hazardous waste unless testing determines them to be non-</p>	

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		<p>hazardous.</p> <p>d. Sufficient separation shall be provided between stored containers to allow for spill cleanup and emergency response access.</p> <p>e. Incompatible materials such as chlorine and ammonia shall not be stored in the same temporary containment facility.</p> <p>d. Throughout the rainy season, temporary containment facilities shall be covered during non-working days and prior to rain events.</p> <p>4. Storage drums shall not be overfilled and wastes should not be mixed.</p> <p>5. Unless watertight, containers of dry waste shall be stored on pallets.</p> <p>6. Herbicides and pesticides shall not be over used. Only the amount needed shall be prepared. Apply surface dressings in several small applications as opposed to one large application. Allow time for infiltration and avoid excess material being carried off-site by runoff. Do not apply such chemicals immediately prior to rain events. All persons applying pesticides must be certified in accordance with federal and State regulations.</p> <p>7. Paint brushes and equipment for water and oil based pants should be cleaned within a contained area and shall not be allowed to contaminate soil, watercourses</p>	

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		<p>or drainage systems. Waste paints, thinners, solvents, residues, and sludges that cannot be recycled or reused shall be disposed of as hazardous waste by a licensed hazardous waste hauler.</p> <p>8. Hazardous waste storage areas on-site shall be located away from storm drains or water courses and way from moving vehicles and equipment to prevent accidental spills.</p> <p>9. Containment berms shall be used in fueling and maintenance areas and where the potential for spills is high.</p> <p>10. Potentially hazardous waste shall be segregated from non-hazardous construction site debris.</p> <p>11. Liquid or semi-liquid hazardous materials shall be stored in appropriate containers and under cover.</p> <p>12. Hazardous waste collection sites shall be designated on-site away from watercourses and drainage systems, and shall be clearly labeled.</p> <p>13. Hazardous materials shall be stored in containers and protected from vandalism.</p> <p>14. All employees and subcontractors shall receive on-site training in hazardous waste storage and disposal procedures.</p> <p>15. Areas treated with chemicals shall be identified with</p>	

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		<p>appropriate warning signage</p> <p>16. Place a stockpile of spill clean-up materials where it will be readily accessible</p> <p>17. Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are underway, BMPs shall be inspected on a weekly basis.</p> <p>18. A copy of hazardous waste manifests shall be maintained on-site for access by City inspectors.</p>	
4.8-2	Would the Project create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<p>HAZ-4 The abandoned well identified in the 2007 Converse Consultant's Technical Memorandum for the Butterfield Specific Plan shall be properly capped and any associated pipeline abandoned and/or removed from the site pursuant to applicable State and federal Guidelines.</p> <p>HAZ-5 Prior to issuance of grading permits, the following remediation efforts shall occur:</p> <ul style="list-style-type: none"> The batteries, auto parts, tires and the diesel engine observed on the concrete pad next to the well and any associated fuel sources shall be removed and disposed of in compliance with all applicable regulations by waste haulers certified by the State for the handling and disposal of such wastes; Piles of asphalt debris and inert trash observed in various locations throughout the property shall be 	Less Than Significant with Mitigation Incorporated

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		<p>removed following their inspection by a hazardous waste consultant and, if required, by a cultural resource consultant, and the material removed and disposed of pursuant to all applicable laws and regulations.</p> <ul style="list-style-type: none"> • Prior to the removal of any potentially hazardous debris, additional environmental assessment and testing shall be completed pursuant to the recommendations of a certified environmental consultant and appropriate methods of handling and disposal shall be identified and implemented pursuant to existing (or then current) regulations and procedures for any particular hazardous waste or toxic material identified. <p>HAZ-6</p> <p>The contractor shall ensure that precautions are taken to avoid the Southern California Gas Company pipeline observed crossing the property diagonally from the west-center of the Project site to the southeast corner and that may be present along the alignments of the proposed off-site infrastructure. Such precautions shall include calling Dig Alert prior to any construction activity to determine and mark the exact location of this pipeline and close coordination with Southern California Gas Company to ensure that appropriate measures are taken by SCGC, including potential reduction in pressure and on-site monitoring, to protect both workers and the pipeline from accidental damage during grading activities. The appropriate identification and setbacks shall be maintained in order to ensure the safety of adjacent properties.</p>	

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		<p>HAZ-7: The Applicant shall ensure that the existing high pressure gas line is replaced by the operator with pipeline that is PUC-rated for location in residential areas. Replacement of the pipeline and required relocation shall occur prior to trenching for sewer, water and storm drain within 25 feet of the outer edge of the pipeline easement and/or prior to the issuance of building permits for residences located within 100 feet of the ultimate pipeline alignment and prior to the paving of any roads within the pipeline alignment. Unless directed otherwise by the PUC, wet utility crossings shall observe a minimum ten-foot vertical separation and ten-feet of horizontal separation from the pipeline, to the extent feasible given the needed depth of utility services. Undergrounded electrical services shall observe a minimum 10 foot horizontal separation from the pipeline. The location of the pipeline shall be indicated with appropriate curbside notation and/or monuments at minimum 50-foot intervals along its route and by ground-level monumentation through the golf course, or at intervals required by the PUC.</p> <p>HAZ- 8 A permit shall be obtained from the Riverside County Fire Department (Banning Services Unit) and, if required, from the County Department of Environmental Health, prior to installation of any temporary above ground fuel storage tank on the Project site.</p> <ul style="list-style-type: none"> A hazardous materials business plan consisting of an owner/operator page, a chemical description/inventory page, and a site map must be submitted with the 	

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		<p>application for permit.</p> <ul style="list-style-type: none"> The storage area shall be kept free of weeds and extraneous combustible material. Plans must be submitted for approval prior to installation. Aboveground fuel/mixed liquid tanks(s) shall meet the following standard: Tank must be tested and labeled to UL2085 Protected Tank Standard or SwRI 93-01. The test must include the Projectile Penetration Test and the Heavy Vehicle Impact Test. A sample copy of the tank's label from an independent test laboratory must be submitted with the tank plans. The tank shall be kept 50 feet from buildings and conspicuously marked with the name DIESEL and COMBUSTIBLE – KEEP FIRE AWAY. The tank shall be located within a secondary containment area such as earthen berms covered from end to end by a thick mil plastic. Concrete or steel may also be used to provide secondary containment. /show calculations for secondary containment on the Site Plan. The tank shall be secured to prevent movement on the containment surface or be mounted on metal skids (not on an elevated stilt rack). The project manager or contractor shall contact the fire department representative for inspections at the time prior to when product is put into the tank to verify compliance, AND at the time when the tank is removed from the site to check for evidence of ground contamination. 	

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4.8-3	Would the proposed Project result in hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	None required.	Less Than Significant
4.8-4	Would the proposed Project be located on a site that is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	None required.	Less Than Significant
4.8-5	Would implementation of the proposed Project impair implementation of or physically interfere with an adopted emergency response plan or emergency	HAZ-9: Prior to the approval of Final Tract maps, the City Engineer and Riverside County Fire Department (Banning Services Unit) shall discuss with the Applicant approximate locations of work activities and ingress and egress points in and out of the construction site to assure there is adequate access and communications protocols for emergency response vehicles	Less Than Significant

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	evacuation plan?	<p>during each of the proposed construction phases.</p> <p>HAZ-10: Prior to the issuance of grading permits or road encroachment permits, a Traffic Management Plan providing safety control measures for area-wide streets that would be affected by construction traffic and activities must be prepared by a licensed civil or traffic engineer, to the satisfaction of the City Engineer, that would minimize safety hazards and emergency access impacts. The temporary measures in the Traffic Management Plan could include: flaggers, temporary lane restriping, temporary lanes, caution signs, reduced-speed zones, temporary detours, and other safety and traffic control devices.</p>	
4.8-6	Would implementation of the Project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildland?	<p>Refer to Mitigation Measures PSU-1a and PSU-1b below.</p> <p>[Applicant shall work with the Fire Chief throughout Project development to determine the appropriate timing for a potential addition of a fire response unit (medic squad, fire engine), or the need for a fire station that is conceptually located in PA 60 but could be located in any Planning Area as described within the Specific Plan.]</p> <p>HAZ-11: All proposed subdivisions within the Specific Plan project area shall be evaluated by the Fire Department to determine whether the Department's Urban-Wildland Interface requirements should be implemented as part of the development. If the Department determines that either an interim or permanent condition of high fire risk would be present, a Fuel Modification Plan that meets the then-current</p>	Less Than Significant with Mitigation Incorporated

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		<p>requirements of the Fire Department shall be prepared and shall be approved by the Fire Department prior to recordation of a Final Tract Map. Maintenance of interim fuel modification areas shall be the responsibility of the master Homeowners Association and/or the property owner and/or a LLMP and temporary maintenance easements shall be recorded over interim fuel modification areas. Such easements shall be quitclaimed when the Fire Department determines that additional new development has eliminated the need for fuel modification in these areas.</p> <p>HAZ-12 Seed mix used for the temporary re-vegetation of graded areas that will remain as undeveloped open space for a period of 6 months or more shall consist primarily of drought-tolerant grasses that may combine native and non-native species. These mixes include grasses that require little maintenance and do not grow tall, but do provide sufficient vegetative coverage to be effective in controlling wind and water-caused erosion. Defensible spaces as defined by the Fire Department pursuant to Chapter 49 of the California Fire Code shall be maintained around the exposed perimeters of subdivisions abutting un-irrigated grassland and/or chaparral through weed abatement, mowing, and other fuel reduction/modification strategies.</p> <p>HAZ-13 The applicant shall continue to provide annual fuel modification as required by City code. The annual fuel modification (thinning) shall also be conducted in the future development areas south of Highland Home Road extension as needed (which excludes PAs 50, 51, 52, 60, 61 and 73, which</p>	

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		shall remain natural until such time these areas are developed or require infrastructure improvements).	
Section 4.8 – Hazards and Hazardous Materials			
Cumulative Impact			
	Hazards and Hazardous Materials	<p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as compliance with federal regulations (i.e., Comprehensive Environmental Response, Compensation and Liability Act [CERCLA], U.S. Superfund Amendments and Reauthorization Act, Hazardous Materials Transportation Act, and Resource Conservation and Recovery Act [RCRA], state regulations (i.e., the California Hazardous Waste Control Law, California Code of Regulations – Title 26 [Toxics], and California Health and Safety Code), City codes (i.e., Chapter 8.16 [Fire Prevention Code] and Chapter 15.08 [Building Code]), permit conditions, the City of Banning General Plan EIR Mitigation Measures (specifically Fire Protection Mitigation Measures A, B, D and E), and mitigation measures.</p> <p>In addition, the proposed Project and applicable cumulative projects will implement the standards and mitigation measures to reduce hazards associated with wildland fires, including California Wildland-Urban Interface Building Code, SRA Fire Safe Regulations, California Public Resources Code Sections 4201-4204 and 4291-4299, and Government Code Sections 51175- 51189, 2010 California Fire Code, and the Riverside County Fire Department Urban-Wildland Interface Standards.</p> <p>Refer to Mitigation Measures HAZ-1 through HAZ-13.</p>	Less than Significant with Mitigation Incorporated

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Section 4.9 – Hydrology and Water Quality			
Project Impacts			
4.9-1	Would the Project result in violation of water quality standards or waste discharge requirements?	None required.	Less Than Significant
4.9-2	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, and increase impervious surfaces, which could substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	HWQ-1: The following measures shall be reflected in applicable Tentative Tract Maps (TTMs), site plans, grading plans, and/or improvement plans to the satisfaction of the City Engineer, prior to applicable plan/permit approval: 1) All building pads within the Specific Plan shall be constructed so that they are free from flood hazard for the 100-year frequency storm by elevating finished floor elevations above the 100-year level of flood protection. 2) The depths of flow in the Project's streets shall not exceed top of curb elevations for the 10-year frequency storm event. 3) Streets shall be oriented to allow for maximum potential conveyance of regional flooding during significant storm events to expedite the passage of storm flows through the Specific Plan area. 4) The Specific Plan will be phased so that 100-year flood protection is ensured in all areas of development. Interim improvements (such as temporary debris basin, earthen	Less Than Significant with Mitigation Incorporated

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		<p>channels/berms, check dams, sand bag barriers,, or other temporary BMP and flood protection measures; refer to Mitigation Measure HWQ-1, bullet #6 and 7 below) shall be provided as development progresses to protect against flooding, erosion, siltation, and water quality impacts.</p> <p>5) All subdivisions implemented as part of the Specific Plan shall be required to detain any incremental increase in drainage within the Project Boundary until the Riverside County Flood Control and Water Conservation District Master Drainage Plan (“Banning” – Zone 5) is fully implemented downstream of the Project site.</p> <p>6) Construction of each phase shall include an assessment of the size and flow patterns of the adjacent undeveloped areas of the Specific Plan site. Interim phase on-site facilities shall provide developed phases with required flood protection pursuant to Code.</p> <p>7) Temporary basins shall be constructed to meet detention requirements and earthen channels/berms shall be used to divert and convey flows during construction phases.</p>	
4.9-3	Would the project create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial	None required	Less Than Significant

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	additional sources of polluted runoff?		
4.9-4	Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	Refer to Mitigation Measures HWQ-1 above. [Tentative Tract Maps (TTMs), site plans, grading plans, and/or improvement plans to the satisfaction of the City Engineer, prior to applicable plan/permit approval, shall show all building pads within the Specific Plan to be constructed so that they are free from flood hazard for the 100-year frequency storm by elevating finished floor elevations above the 100-year level of flood protection.] .	Less Than Significant with Mitigation Incorporated
4.9-5	Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	Refer to Mitigation Measures HWQ-1 above. [Construction of each phase shall include an assessment of the size and flow patterns of the adjacent undeveloped areas of the Specific Plan site. Interim phase on-site facilities shall provide developed phases with required flood protection pursuant to Code. Temporary basins shall be constructed to meet detention requirements and earthen channels/berms shall be used to divert and convey flows during construction phases.]	Less Than Significant
4.9-6	Would the project be subject to inundation by seiche,	None required	Less Than Significant

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	tsunami, or mudflow?		
Section 4.9 – Hydrology and Water Quality			
Cumulative Impact			
	Hydrology and Water Quality	<p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as compliance with the Clean Water Act, FEMA floodplain regulations, the Porter-Cologne Water Quality Control Act including Waste Discharge Requirements, RWQCB Water Quality Control Plans (WQCP), RWQCB Construction General Permit requirements, Riverside County Flood Control and Water Conservation District MS4 Permit, the Santa Ana RWQCB and the Colorado River RWQCB Basin Plans, City of Banning code (i.e., Chapter 13.24, Stormwater Code, Chapter 15.64 – Floodplain Management Ordinance, and Chapter 18 – Erosion and Sediment Control), other developments' permit conditions, and mitigation measure.</p> <p>Refer to City of Banning General Plan EIR Hydrology Mitigation Measures F, G, K, L, P and Q and Water Resources/Quality Mitigation Measures I and J.</p> <p>Also refer to Mitigation Measure HWQ-1.</p>	Less than Significant with Mitigation Incorporated
Section 4.10 – Land Use and Planning			
Project Impacts			
4.10-1	Would the project physically divide an established community?	None required	No Impact
4.10-2	Would the project conflict with any applicable land use plan, policy, or	None required.	Less Than Significant

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	regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?		
4.10-3	Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?	<p>Refer to Mitigation Measures BIO 1 through BIO-5.</p> <p>[Prior to the commencement of grading, all suitable habitat shall be surveyed for the presence of nesting birds. In addition, a preconstruction clearance survey for burrowing owl will be performed. The applicant shall provide compensatory mitigation for the temporary disturbance of CDFG, RWQCB, and USACE jurisdictional waters which include approximately 0.41 acres of vegetated riparian habitat. Prior to the issuance of the grading permits the developer shall complete and submit an MSHCP Consistency study all required protocol and habitat assessment studies. In addition, a DBESP shall be prepared and all biological mitigation measures contained within the DBESP shall be implemented. Lastly, the construction plans and specifications shall include regular watering to control dust, equipment storage, fueling and staging areas will be sited on non-sensitive upland habitat types, the limits of disturbance will be clearly defined and marked with monitoring to review these limits, Covered Species habitat will be avoided, exotic plant species will be removed, and waste and debris will not</p>	Less Than Significant with Mitigation Incorporated

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		be deposited in conservation areas or native habitat.]	
Section 4.10 – Land Use and Planning			
Cumulative Impact			
	Land Use	<p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures, standards, and policies, such as compliance with the SCAG Regional Comprehensive Plan, Compass Blueprint Growth Visioning Program, and Regional Transportation Plan (2008 RTP), the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), City of Banning Zoning Code (Title 17), other development's permit conditions and the City of Banning and City of Beaumont General Plan Land Use Maps.</p> <p>Refer to City of Banning General Plan EIR Land Use Mitigation Measure A.</p>	Less than Significant Impact
Section 4.11 – Noise			
Project Impacts			
4.11-1	Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	<p>NOI-1 As a condition of approval of all grading and building permits, the Applicant shall comply with the following list of noise reduction measures, subject to inclusion of additional provisions at the discretion of the Building Official as appropriate:</p> <ul style="list-style-type: none">Excavation, grading, and other noise-intensive construction activities related to the proposed Project	Less Than Significant with Mitigation Incorporated

² Each doubling of distance reduces the noise by approximately 4.5 dBA, so for peak construction noise such as scrapers, an exterior noise level of 84 dBA at 50 feet reduces to 70.5 dBA at 400 feet, with a 20 dBA typical noise reduction from closed windows, results in an interior noise level of 50.5 dBA, without any further consideration of attenuation by intervening topography, structures, or perimeter walls.

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		<p>shall be restricted to the hours of operation allowed under Section 8.44.090.E, Noise Prohibited – Unnecessary Noise Standard – Construction, Landscape Maintenance or Repair, of the City Municipal Code. Any deviations from these standards shall require the written approval of the City Building Official. The days and hours shall also apply to any servicing of equipment and to the movement of materials to and from the site.</p> <ul style="list-style-type: none"> • The developer shall require, as a condition of contract, that all construction equipment operating on the site be equipped with mufflers and sound control devices (e.g., intake silencers and noise shrouds) no less effective than those provided on the original equipment and no equipment shall have an unmuffled exhaust. • The developer shall require all contractors, as a condition of contract, to maintain and tune-up all construction equipment to minimize noise emissions • Stockpiling and vehicle staging areas shall be located a minimum of 500 feet from occupied residences,² and screened from these uses by a solid noise attenuation barrier where necessary to achieve City Municipal Code-required noise attenuation levels. • Solid noise attenuation barriers (temporary barriers or noise curtains) with a sound transmission coefficient (STC) of at least 20 shall be used along Project boundaries adjacent to sensitive receptors, where noise monitoring, performed by a qualified noise monitor, 	

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		<p>indicates exceedance of City Municipal Code noise levels for more than 15 minutes in any one hour period.</p> <ul style="list-style-type: none"> Construction activities that occur outside the allowable hours per City standards (6 PM to 7 AM) shall require approval of the City Building Official based on demonstration of unusual circumstances and avoidance of significant impacts to neighboring sensitive receptors. Construction noise exceeding City standards (i.e., interior noise in excess of 50 dBA or exterior noise in excess of 65 dBA) and statutory time limits is anticipated, shall require implementation of additional noise attenuation measures such as temporary noise “curtains” to reduce construction noise to meet City Standards, or offer the affected sensitive receptors the option of temporary relocation at the Developer’s expense for the duration of the impact. All stationary construction equipment (e.g., air compressor, generators, etc.) shall be operated as far away from the residential and institutional uses as feasible. If this is not feasible, the equipment shall be shielded with temporary sound barriers, sound aprons, or sound skins to the satisfaction of the Building Official. In areas subject to potentially significant construction noise impacts, the developer shall be required to monitor and document compliance with all applicable noise level limits. Construction haul routes for large equipment and 	

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		<p>material import/export shall be specified to minimize the use of routes affecting sensitive receptors (e.g., residential, parks, hospitals, schools, convalescent homes, etc.). To the extent feasible, construction phasing for individual subdivisions shall be designed to avoid the need for construction vehicles and related construction traffic to traverse occupied residential neighborhoods. In all cases, trucks shall utilize a route that is least disruptive to sensitive receptors. Construction trucks shall, to the extent feasible, avoid weekday and Saturday AM and PM peak hours (7 AM to 9 AM and 4 PM to 6 PM).</p> <p>NOI-2 Prior to the issuance of each grading or building permit, the Applicant shall submit to the Building Official a proposed Construction Noise Monitoring Program to respond to and track complaints pertaining to construction noise, throughout demolition and/or grading. Throughout and/or grading, these measures shall include the following:</p> <ul style="list-style-type: none"> • A procedure and phone numbers for notifying the City Building and Safety Department staff and Banning Police Department (during regular construction hours and off-hours); • A sign prominently posted on-site containing the permitted construction days and hours and complaint procedures and the name and phone number of the person(s) to notify in the event of a problem. The sign shall also include a listing of both the City and 	

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		<p>construction contractor's telephone numbers (during regular construction hours and off-hours);</p> <ul style="list-style-type: none"> The designation of an on-site construction complaint and enforcement manager for the Project. The manager shall act as a liaison between the Project and its neighbors. The manager's responsibilities and authority shall include the following: <ul style="list-style-type: none"> An active role in monitoring project compliance with respect to noise; Ability to reschedule noisy construction activities to reduce effects on surrounding sensitive receivers; Site supervision of all potential sources of noise (e.g., material delivery, construction staging areas, construction workers, debris box pick-up and delivery) for all trades; Intervening or discussing mitigation options with contractors; and Conducting a preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed. 	
4.11-2	Would the project expose	NOI-3 The Applicant shall, through contract specifications, prohibit	Less Than Significant

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	persons to or generate excessive ground borne vibration or ground borne noise levels.	the use of any on-site construction equipment generating greater than 0.049 RMS (greater than 79 VpD) within 25 feet of any sensitive use or limit the use of equipment exceeding this standard to less than 30 events per day.	with Mitigation Incorporated
4.11-3	Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	NOI-4 Prior to the issuance of grading permits or encroachment permits for the improvement of Highland Home Road (aka Meridian Street) between future "D Street" and Wilson Street, an acoustical study shall be completed by the Applicant (using construction-level improvement plans and/or more detailed grading plans) and submitted to the City for review and approval. The acoustical study will specify additional specific noise attenuation measures necessary, if any, to ensure that the City of Banning's exterior and interior noise standards are met at adjacent residential properties. Appropriate attenuation measures could include a solid wall in the landscaped parkway between future Highland Home Road and the existing frontage street.	Less Than Significant with Mitigation Incorporated
4.11-4	Would the Project expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Refer to Mitigation Measure NOI-1, NOI-2, and NOI-4 above. [The Applicant shall implement noise-reduction measure, such as maintaining equipment in good working condition, diverting haul routes away from sensitive receptors, and adhering to allowable construction hours. The Applicant shall also submit to the Building Official a proposed Construction Noise Monitoring Program to response to and track complaints	Less Than Significant with Mitigation Incorporated

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		pertaining to construction noise. Lastly, prior to the issuance of a grading permit or encroachment permit for the improvement of Highland Home Road between future "D" Street and Wilson Street, an acoustical study shall be completed by the Applicant.]	
4.11-5	Would the Project result in stationary-source noise impacts on nearby sensitive receptors?	NOI-5: Prior to the issuance of building permits for non-residential uses (such as commercial areas, wastewater treatment plant, and the golf course clubhouse), the Applicant shall prepare a site-specific construction level noise analysis, analyzing potential on and off site noise impacts, based upon detailed grading plans, improvement plans and site plans. The grading, site and/or improvement plans for these uses shall include the location of stationary noise sources, such as loading docks, air conditioning units, trash hauling and trash compactors (noise from trash pickup and compacting results from the use of hydraulic equipment to raise and lower the metal trash bins and to compact their contents), and drive-thru lanes. The noise analysis shall evaluate the potential noise impacts to the existing and proposed noise sensitive homes near the commercial areas of the project. In the event the analysis shows that noise levels for any adjacent sensitive receptor(s) would exceed applicable standards, measures shall be required to reduce noise to levels to within applicable standards, including providing enclosures for stationary sources (such as pump stations and air conditioners), and providing walls or siting to attenuate mobile or stationary sources from receptors (such as loading bays). The analysis	Less Than Significant with Mitigation Incorporated

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		shall be subject to review and approval by the City Building Official and shall ensure compliance with applicable exterior and interior noise standards.	
Section 4.11 – Noise			
Cumulative Impacts			
	Noise	<p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as compliance with the City of Banning Noise Ordinance, California Code of Regulations Title 25, Section 1092, other developments' permit conditions, the City of Banning and City of Beaumont General Plan EIR Mitigation Measures, and mitigation measures.</p> <p>Refer to City of Banning General Plan EIR Land Use Mitigation Measure B and Noise Mitigation Measures B, C, D, E, F, G, I, J, K, L, M, and N.</p> <p>Also, refer to Mitigation Measures NOI-1 through NOI-5.</p>	Significant and Unavoidable (Cumulative)
Section 4.12 – Public Services and Utilities			
Project Impacts			
4.12-1	Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered fire protection facilities or the	<p>Refer to Mitigation Measures HAZ-6 and HAZ-10 through HAZ-12.</p> <p>[The contractor shall ensure that precautions are taken to avoid the Southern California Gas Company pipeline that crosses the property. Prior to the issuance of grading permits or road encroachment permits, a Traffic Management Plan providing safety control measures for area-wide streets that would be affected by construction traffic and activities must be</p>	Less Than Significant with Mitigation Incorporated

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	need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance standards?	<p>prepared. In addition, if the Fire Department determines that either an interim or permanent condition of high fire risk will be present, a Fuel Modification Plan shall be prepared and shall be approved by the Fire Department. Lastly, seed mix used for the temporary re-vegetation of graded areas that will remain as undeveloped open space for a period of 6 months or more shall consist primarily of drought tolerant grasses.]</p> <p>PSU-1: Applicant shall communicate and work with the Fire Chief throughout Project development to determine the appropriate timing for a potential addition of a fire response unit (medic squad, fire engine), or the need for a fire station that is conceptually located in PA 60 but could be located in any Planning Area as described within the Specific Plan. When the fire station or a response unit is determined to be necessary, the Applicant shall fund and/or construct the fire response unit and/or fire station and would subsequently be credited the cost of the fire response unit or fire station towards the dedication of fire fees.</p>	
4.12-2	Would the Project result in substantial adverse environmental impacts associated with the	<p>PSU-2: The Project shall incorporate the principles of defensible space as defined by the U.S. Department of Housing and Urban Development Office of Policy Development and Research³ in the design of cluster housing and/or multifamily</p>	Less Than Significant with Mitigation Incorporated

³ See Oscar Newman, *Creating Defensible Space*, 1996, Institute for Community Design Analysis, US Department of Housing and Urban Development, Office of Policy Development and Research for applicable guidelines and design criteria.

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	provision of new or physically altered police protection facilities or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance standards?	<p>housing within the proposed Project to reduce the impact of such development on police services. These principles shall be incorporated through inclusion of the following design solutions:</p> <ul style="list-style-type: none"> • Orienting the front doors and living area windows to the public street without providing “protection” of walls and fencing while providing back doors in these same units that allow access to more secure play areas and open space. • Clustering parking in close proximity to units or the must provide enclosed garages or semi-subterranean parking garages that can be secured. • Providing motion-activated security lighting. • Clustering multifamily units around shared courtyard spaces with appropriate amenities that draw residents into the common area and encourage the development of relationships between neighbors through interaction in the public domain 	
4.12-3	Would the Project result in substantial adverse environmental impacts	<p>PSU-3: The Project shall include potential school sites within the development by designating and setting aside two 11+ acre Planning Areas (i.e., PA 68 for Banning Unified School</p>	Less Than Significant with Mitigation Incorporated

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	associated with the provision of new or physically altered school facilities?	District and PA 20 for Beaumont Unified School District) to increase available school facilities. ⁴	
4.12-4	Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered public library facilities?	None required.	Less Than Significant
4.12-5	Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered hospital facilities?	None required	Less Than Significant
4.12-6	Would the Project result in an increase the use of	Refer to Mitigation Measure AES-7 above.	Less Than Significant with Mitigation

⁴ The intent of Mitigation Measure PSU-3 is to initially designate and set aside each of the two 11+ acre Planning Areas, then offer these sites to the School Districts for sale of fee credit. In the event that one or both of the Districts choose to not accept the site, the Applicant may opt to implement the residential overlay on the corresponding school site, which would permit medium-density residential development at 10 du/ac.

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
	<p>existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?</p> <p>And</p> <p>Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?</p>	<p>[Architectural plans, including detailed lighting specifications, shall be submitted for the review and approval by the City of Banning Community Development Director. The specifications shall be consistent with lighting standards included in the Specific Plan and shall meet or exceed the lighting standards contained in the City's <i>Municipal Code</i>.]</p>	Incorporated
4.12-7	<p>Would the Project require or result in the construction of new energy production and/or transmission facilities or expansion or existing facilities, the construction of which could cause significant environmental effects?</p>	<p>Refer to Mitigation Measure HAZ-6 above.</p> <p>[The contractor shall ensure that precautions are taken to avoid the Southern California Gas Company pipeline observed crossing the property diagonally from the west-center of the Project site to the southeast corner and that may be present along the alignments of the proposed off-site infrastructure.]</p>	<p>Less Than Significant with Mitigation Incorporated</p>

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	And Would the Project encourage the inefficient, wasteful or unnecessary consumption of energy?		
4.12-8	Would the Project result in a need for new systems or substantial alterations to existing communication systems?	None required.	Less Than Significant
4.12-9	Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? And Would the Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental	PSU-4 Offsite infrastructure improvements shall comply with all of the same mitigation measures for onsite facilities, as applicable. Off-site facilities shall provide for: a Fair market compensation for private land acquisition, if City-owned parcels are not available. Such acquisition shall be either through voluntary sale or through eminent domain proceedings in accordance with local and State law. b. A general biological assessment for off-site above ground infrastructure by a qualified biologist. If sensitive resources are determined to be present, those resources shall be assessed and/or delineated, mitigation measures shall be developed and	Less Than Significant with Mitigation Incorporated

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	effects? And Would the Project result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?	imposed. Refer to Mitigation Measures AQ-8 and NOI-5. PSU-5 Prior to the issuance of building permits for the Satellite Wastewater Treatment Plant and wastewater facilities, the Applicant shall prepare a site-specific construction-level noise analysis analyzing potential on- and off-site noise impacts. In addition, the analysis shall evaluate the potential noise impacts to existing and proposed sensitive receptors. Construction and implementation of the wastewater treatment plan would require a Conditional Use Permit (CUP) to be approved by the City of Banning, as well as design review of the proposed site plan and building architecture, landscaping and lighting. Compliance with the existing regulations (specified under Impact 4.8-1) and on-going monitoring of the plant's operations would reduce potential impacts associated with the routine use, handling, transport, and storage of hazardous materials.	
4.12-10	Would the Project be served by a landfill that does not have sufficient permitted capacity for Project's solid waste disposal needs? And	PSU-6 The operator of the Butterfield Specific Plan Golf Course shall prepare and implement a Operational Waste Management Plan that incorporates to the extent feasible the Best Management Practices for the management of green waste recommended by the Golf Course Superintendent Association of America (GCSAA) including separate collection and recycling of green waste by a licensed hauler and recycling	Less Than Significant with Mitigation Incorporated

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
	Would the Project fail to comply with federal, State, and local statutes and regulations related to solid waste?	facility, on-site use of green waste for landscape mulching, and other methods acceptable to the City and the SCAQMD so as to reduce the facility's impact on landfill capacity.	
Section 4.12 – Public Services and Utilities			
Cumulative Impacts			
	Public Services and Utilities	<p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as compliance with the 2010 California Fire Code (CFC), California Health and Safety Code, City of Banning Municipal Code, California Senate Bill 50 (SB 50) and California Government Code 66478, Quimby Act, California Code of Regulations (CCR) Title 24, California CCR, Title 22, other developments' permit conditions, the City of Banning and City of Beaumont General Plan EIR Mitigation Measures, and mitigation measures.</p> <p>Refer to City of Banning General Plan EIR Public Services and Utilities Mitigation Measures A through E (fire protection), A through F (police protection) A and B (educational facilities), and A through C (library services). A through D (electricity), A and B (natural gas), A through D (domestic water services), and A through E (solid waste).</p> <p>Also, refer to Mitigation Measures PSU-1 through PSU-6.</p>	Less than Significant with Mitigation Incorporated

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
Section 4.13 – Traffic and Transportation			
Project Impacts			
4.13-1	Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<p>TRF-1: If not constructed by the City or others, the Applicant shall construct road improvements identified in Table 4.13-9, <i>Summary of Future Improvements</i> (“Existing plus Project” improvements in the City of Banning only). These improvements include portions on Highland Springs Avenue in the City of Beaumont, between I-10 and Brookfield, but exclude locations that are deemed by the affected jurisdiction(s) to be infeasible due to impacts of ROW acquisition. If constructed by the Applicant, the cost of these improvements shall be credited against applicable City fees, and/or shall be eligible for reimbursement agreements with the City and/or third parties. The Improvements listed in Table 4.13-9 shall be consistent with the General Plan Circulation Element.</p> <p>TRF-2: As part of each Final Tract Map, or appropriate group of maps, the Applicant shall prepare a TIA Validation Report (TVR) based on the criteria provided herein for review and approval by the City Engineer. Final Tract Map approvals resulting in less than 500 p.m. peak hour trips (Exempt Maps) shall not require a TVR unless the cumulative total of prior approved Exempt Maps exceeds 1,000 p.m. peak hour trips since the last TVR.</p> <p>The TVR shall identify which of the Existing Plus Project</p>	Potentially Significant and unavoidable with Mitigation Incorporated

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
		<p>improvements identified in Table 4.13-9, are required to be constructed for the respective Final Tract Map, to ensure adequate emergency access and satisfactory levels of service. Improvements identified in an approved TVR shall be conditions of Final Tract Map approval. To the extent that any of the improvements mentioned above are included in a fee program, the cost for those improvements, if constructed by the Applicant, will be eligible for fee credits.</p> <p>The ongoing traffic impact assessment program will be based on the p.m. peak-hour trip threshold. The Final Tract Maps' total number of p.m. peak hour trips will be established based on the trip generation listed in Table 4.13-7, <i>Project Trip Generation</i>. If a portion of commercial development and some residential development is included in the Final Tract Map, the total number of trips generated by each use (commercial and residential) will be calculated for the p.m. peak hour and compared to a predefined threshold.</p> <p>Recognizing the variety of land use options, overlays and permitted or conditionally permitted uses, the TVR will also be used to verify , as the Project builds out, that the Project's total peak hour trips are consistent with the assumptions in the Project TIA.</p> <p>TRF-3 Improvement plans shall be prepared for each Project-related offsite traffic improvement and approved by the City Engineer. Improvement plans shall incorporate the following</p>	

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
		<p>considerations, as applicable:</p> <ul style="list-style-type: none"> a) Obtain encroachment permit(s) from the applicable jurisdiction(s) for offsite improvements; b) Through creative design techniques, where determined feasible and consistent with City policy, modify roadway geometry to reduce potential impacts to existing developed areas (such as reduced lane widths, reduced or eliminated medians, reduced turn lane transition zones, and/or shifting intersection approaches to widen intersection quadrants where associated impacts would be reduced); c) Maintain access for existing residences and businesses at all times; d) Replace landscaped areas within the affected parcel and along the parcel frontage wherever practical; e) Assist the affected property owner in restriping affected parking areas and/or reconfiguring affected driveways to avoid or offset improvement-related impacts; f) Follow applicable Project EIR mitigation measures related to biological resources (i.e., BIO-1 through BIO-5), with respect to minimizing loss of native vegetation, replacement or relocation of mature trees, use of native and/or drought tolerant vegetation in new landscaped areas, and ensuring consistency with applicable MSHCP and regulatory agency permitting provisions; and g) Compensate the affected property owner based on fair 	

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
		market valuation of the acquired ROW in accordance with applicable local, State and federal regulations.	
4.13-2	Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Refer to Mitigation Measures TRF-1through TRF-3. [The Applicant shall construct road improvements identified in Table 4.13-9, Summary of Future Improvements ("Existing Plus Project" improvements in the City of Banning only). As part of each Final Tract Map, or appropriate group of maps, the Applicant shall submit a TIA Validation Report (TVR). The TVR will provide a focused defined TVR process to identify which of the Existing Plus Project improvement identified are required to be constructed for the respective Final Tract Map to ensure adequate emergency access and acceptable levels of service. Lastly, improvement plans for each Project-related offsite traffic improvement shall incorporate the considerations listed in Mitigation Measure TRF-3.]	Potentially Significant and unavoidable with Mitigation Incorporated
4.13-3	Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	None required.	No Impact
4.13-4	Would the project substantially increase hazards due to a design	None required.	Less Than Significant

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
	feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		
4.13-5	Would the project result in inadequate emergency access?	None required	No Impact
4.13-6	Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	None required.	Less Than Significant
Section 4.13 – Traffic and Transportation			
Cumulative Impacts			
	Traffic and Transportation	TRF-4 The applicant shall pay a fair share toward cumulative impacts not otherwise captured in existing fee programs, funding sources or in lieu improvements noted above, if such a program is in place at the time of building permit issuance, based on project contribution percentages identified in Table 4.13-16. Refer to City of Banning General Plan EIR Traffic/Circulation Mitigation	Potentially Significant and unavoidable with Mitigation Incorporated (Cumulative)

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
		Measures C, D, F, G, H, L, M, O, P, and Q. Also, refer to Mitigation Measures TRF-1 through TRF-3.	
Section 4.14 – Water Supply			
Project Impacts			
4.14-1	Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<p>WS-1: With respect to all City groundwater supplies, the City will:</p> <ol style="list-style-type: none"> 1) Periodically, conduct a groundwater audit that evaluates groundwater level trends, production rates, groundwater quality or other aquifer/well/pump considerations from the previous year (through use of a on-going groundwater monitoring and data collection system). 2) Develop a groundwater model to allow accurate simulation of groundwater flow and groundwater quality (including potential impacts by recharge of recycled water) in the City of Banning groundwater resource area. <p>Additionally, to avoid injury to other legal users of the Cabazon Basin, the City will:</p> <ol style="list-style-type: none"> 3) Site any new well so as to not result in material interference to existing wells. 	Less Than Significant with Mitigation Incorporated
4.14-2	Would there be sufficient water supplies available to serve the project from	<p>Refer to Mitigation Measures WS-1 above.</p> <p>[The City will conduct groundwater audits that evaluates groundwater level</p>	Less Than Significant

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
	existing entitlements and resources, or are new or expanded entitlements needed?	trends, production rates, groundwater quality or other aquifer/well/pump considerations. The City will develop a groundwater model by 2015 to allow accurate simulation of groundwater flow and groundwater quality (including potential impacts by recharge of recycled water). The City will site any new well so as to not result in material interference to existing wells. Lastly, the City will avoid injury to other legal users of the Cabazon Basin by siting any new well so as to not result in material interference to existing wells.]	
4.14-3	Would the project require or result in the construction of new water system facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Refer to applicable AES, AQ, BIO, CUL, GEO, HAZ, HWQ, NOI, PSU, and WS Mitigation Measures.	Less Than Significant, with Mitigation
Section 4.14 – Water Supply			
Cumulative Impacts			
	Water Supply	<p>WS-2: Additionally, to guard against the potential adverse effects of climate change on the City's water supplies, the City will:</p> <ol style="list-style-type: none"> 1) Continue to manage its imported and surface water supplies conjunctively with its groundwater supplies to maximize opportunities for groundwater storage. 2) Continue to monitor expert technical analyses of the impacts of climate change on surface and groundwater supplies and 	Less than Significant Impact with Mitigation Incorporated

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
		<p>incorporate any recommendations into the City's water supply planning efforts.</p> <p>3) Continue to practice and promote integrated flood management. The City will incorporate climate change findings into infrastructure design and continue to integrate water and land use practices, such as encouraging new developments to capture and treat stormwater onsite. New water infrastructure will be designed to operate under a wide range of conditions and will consider climate change impacts.</p> <p>4) Continue to diversify its portfolio through increased water use efficiency and aggressive demand reductions achieved by existing and new conservation programs. The development and use of a new recycled water supply will further diversity the City's portfolio and reduce potable water demands.</p> <p>5) Continue to further develop regional alliances with cities, water districts and water agencies to integrate, improve and develop regional water management.</p> <p>The proposed Project and applicable cumulative projects will implement applicable mitigation measures and standards, such as compliance with State Senate Bills 901 and 610, Title 24 of the California Administrative Code, Title 22 of the California Code of Regulations, California Plumbing Code, City of Banning Municipal Code (Title 13), the City of Banning Water Efficient Landscaping Ordinance, the City of Banning and City of Beaumont General</p>	

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Impact No.	Impact	Mitigation Measure	Significant Determination (after implementation of mitigation, if necessary)
		<p>Plan EIR Mitigation Measures, permit conditions, and mitigation measures.</p> <p>Refer to City of Banning General Plan EIR Water Resources Mitigation Measures B, D, E, F, H and I.</p> <p>Also, refer to Mitigation Measures WS-1 and WS-2.</p>	

1.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS

While the specific mitigation measures summarized above would reduce the level of many significant impacts to a less than significant level, the Draft EIR identified the following areas where, after the implementation of feasible mitigation measures, the Project may nonetheless result in impacts which cannot be fully mitigated (note that these conclusions, and overall Project impacts, are similar to those found in the previously certified Deutsch Specific Plan EIR and City of Banning General Plan EIR):

PROJECT IMPACTS

Aesthetics, Light and Glare

Due to the size of the proposed Project and the current context of rural, undeveloped conditions, the Project's impact on light and glare is considered significant and unavoidable (although typical of any large-scale residential development, and mitigated to the extent feasible).

Air Quality

Construction-Related Emissions – As Project-related emissions are anticipated to exceed SCAQMD thresholds, construction-related emissions are considered significant and unavoidable.

Regional Operational Emissions – During the operational phase, the Project would result in a net increase in regional emissions of ROG, NO_x, SO₂, CO, PM₁₀, and PM_{2.5} from the operation of both stationary and mobile sources. Despite the inclusion of numerous project design features that would reduce the potential air quality impacts to the degree feasible, emissions would remain above SCAQMD significance thresholds. Therefore, operation of the proposed Project would have a significant and unavoidable impact on regional air quality.

AQMP Consistency – As the Project would exceed SCAQMD thresholds, the Project would potentially result in a long-term impact on the region's ability to meet State and Federal air quality Standards. The Project would conflict with the AQMP as it would not meet the first AQMP consistency criterion. However, the proposed Specific Plan is generally consistent with the previously approved Deutsch Specific Plan, and therefore the City of Banning General Plan's assumptions regarding population and housing growth. On a regional scale, the emissions from the Specific Plan have been considered in the forecasts presented in the 2007 AQMP. The Project would meet the second AQMP consistency criterion.

Traffic and Circulation

Construction of the recommended improvements, when and where needed, would achieve applicable level-of-service performance at all study area intersections; however, as some improvements could also result in significant impacts to existing land uses (due to Project right-of-way requirements), certain improvements may either be made in part, deferred or not implemented due to overriding considerations and/or limited funding. Further, many of the recommended improvements are located in jurisdictions outside the City of Banning. Most of these improvements have been, can be and should be implemented by those other agencies, but successfully completing the improvements in a timely fashion cannot be guaranteed.

CUMULATIVE IMPACTS

Aesthetics, Light and Glare

The Project will introduce significant sources of light and glare into an existing rural, undeveloped area and result in a significant and unavoidable adverse impact on nighttime views of the Project site in the interim and long-term build-out condition. Mitigation measures can reduce these impacts but would not reduce them to a level of insignificance due to the nature, size, and scale of the proposed project and its cumulative significance.

Air Quality

Emissions from development and operation of the proposed Project would exceed the SCAQMD thresholds, resulting in a significant impact. In accordance with SCAQMD methodology, any project that cannot be mitigated to a level of less than significant is also significant on a cumulative basis.

Climate Change

Although the Project has incorporated reasonable and feasible mitigation measures the Project's incremental contribution to global climate change can be considered "significant" on a cumulatively considerable basis. Although implementation of these mitigation measures would reduce the proposed Project's greenhouse gas emissions, such project-specific mitigation may not be feasibly imposed upon cumulative projects.

Noise

As the project cannot reasonably or feasibly mitigate for cumulative mobile noise impacts (e.g., constructing sound walls along the entire perimeter of the sensitive uses surrounding the project site; forcing existing residential uses to change their existing windows; etc.), implementation of the proposed Project would result in a significant and unavoidable impact for cumulative mobile noise impacts as both the combined and incremental effects criteria have been exceeded.

Traffic and Circulation

As stated above under the Project impacts related to traffic and circulation, construction of the recommended improvements, when and where needed, would achieve applicable level-of-service performance at all study area intersections; however, as some improvements could also result in significant impacts to existing land uses (due to cumulative right-of-way requirements), certain improvements may either be made in part, deferred or not implemented due to overriding considerations and/or limited funding. Further, many of the recommended improvements are located in jurisdictions outside the City of Banning. Most of these improvements have been, can be and should be implemented by those other agencies, but successfully completing the improvements in a timely fashion cannot be guaranteed.

1.4 SUMMARY OF PROJECT ALTERNATIVES

This is a summary of the project alternatives described in Section 6.0, *Alternatives*, which contains a detailed discussion. The Project alternatives identified within Table 1.0-2, Comparison of Impacts resulting from Project Alternatives as Compared to the Proposed Project, have been designed to alleviate identified environmental impacts, or were specifically requested for consideration during the preparation of the EIR.

No Project/No Development Alternative

The No Project / No Development Alternative assumes that the proposed Butterfield Specific Plan Project would not occur, and the Project site would remain in its existing condition. No development would occur. The existing open space would remain, and the owner may continue the limited cattle grazing activities. No residential development, landscaping, infrastructure, commercial, public or private recreational facilities would be constructed or implemented. It is important to note that this Alternative does not reflect the landowner/Applicant's current entitlement as set forth in the Deutsch Specific Plan. The site is designated for development in a manner generally consistent with the proposed Project, the City's General Plan reflects this designation, and there have been no indications by City staff, elected officials or the public through the EIR scoping process that there is a desire to repurchase the site from the owner to preserve it as permanent open space.

Table 1.0-2
Comparison of Impacts Resulting from Project Alternatives
as Compared to the Proposed Project

Impact	No Project/No Development	No Project/Existing Specific Plan Alternative	Reduced Density – 20% Reduction Alternative	Active Adult Community Alternative	No Golf Course Alternative
Aesthetics, Light, and Glare	Reduced	Similar/Greater	Reduced	Similar	Reduced
Agricultural Resources	Reduced	Similar	Similar	Similar	Similar
Air Quality	Reduced	Reduced	Reduced	Reduced	Reduced
Biological Resources	Reduced	Greater	Similar	Similar	Similar
Climate Change	Reduced	Similar/Greater	Reduced	Reduced	Reduced
Cultural Resources	Reduced	Greater	Similar	Similar	Similar
Geology, Soils, and Seismicity	Reduced	Greater	Reduced	Reduced	Reduced
Hazards and Hazardous Materials	Reduced	Similar	Similar	Similar	Reduced
Hydrology and Water Quality	Reduced	Greater	Reduced	Similar	Similar
Land Use and Planning	Greater	Similar/Greater	Similar	Similar	Similar
Noise	Reduced	Similar	Reduced	Reduced	Reduced
Public Utilities and Services	Reduced	Greater	Reduced	Reduced	Reduced
Traffic and Transportation	Reduced	Reduced	Reduced	Reduced	Reduced
Water Supply	Reduced	Reduced	Reduced	Reduced	Reduced

Note: It should be noted that the overall project design with this alternative is not yet known. Although it is anticipated to be similar to the proposed Project, if the on-site open space preserved is greater than the proposed Project, impacts would be reduced with this alternative; conversely if the on-site open space is decreased, then impacts with this alternative would be greater.

No Project/Existing Specific Plan Alternative

The No Project / Existing Specific Plan Alternative assumes that development as proposed with the Butterfield Specific Plan Project would not occur, and that the Project site would instead remain subject to the provisions contained within the currently approved Deutsch Property Specific Plan. The Deutsch Property Specific Plan provides for a total of 5,400 dwelling units (with a net density of 3.5 du/ac), three elementary schools, a 193-acre 18-hole championship golf course, a 10-acre community center, a 10-acre commercial site, a 5-acre medical/office site, and two community parks and three neighborhood parks (totaling approximately 75 acres of parks). The Deutsch Property Specific Plan includes a higher maximum number of dwelling units than the proposed Project (5,387 dwelling units) and an equivalent gross density (3.5 du/ac). Additionally, this alternative would have a slightly larger impact area (1,552 acres) than the proposed Project (1,543 acres). A detailed comparison of the currently approved Deutsch Specific Plan with the proposed Butterfield Specific Plan is provided in Section 3.4.2 and Table 3.0-3 of this Draft EIR, and in Section 1.4 of the Draft Butterfield Specific Plan.

The primary differences between the presently approved and the proposed Specific Plans are:

- Similar dwelling units (5,400 in Deutsch SP vs. 5,387 in Butterfield)
- Substantial decrease in open space in Deutsch Specific Plan (268 acres in Deutsch vs. 428.8 acres in Butterfield)
- Increase in commercial from 25 to 36 acres
- Addition of an optional satellite wastewater treatment plant
- More efficient internal circulation system, including an NEV program
- Addition of open space buffers along the northeastern boundary
- Creation of a 70-acre natural open space area in PA 71, preserving the steeper slopes in open space
- Realignment of the golf course and Planning Areas to respect the identified seismic hazards
- Addition of an optional 21-acre area that may be acquired and/or annexed in the future

This Alternative would not implement many of the Project Design Features noted in Section 3.8 of this DEIR, including clustered development (which reduces total grading and preserves the more visible higher elevations), avoiding of known seismic hazards, a more extensive and integrated water supply and conservation program, and other favorable improvements in the Project since its approval in 1993. This Alternative would result in similar or greater impacts as compared to the Project, and is not under consideration at this time.

Reduced Density (20% Reduction) Alternative

The purpose of the Reduced Density Alternative is to reduce impacts from the Project related to the number of units developed and the intensity of development. Under this alternative, the total number of residential dwelling units would be reduced from 5,387 to 4,318, representing a reduction of 1,069 units, or approximately 20 percent. This alternative assumes the development of 4,318 residential units in the same Planning Areas proposed with the Project. Under this alternative, the average residential density would be reduced from 3.5 to 2.8 dwelling units per acre (du/ac). This reduced density alternative would not necessarily have the same design features as the proposed Project, and therefore, the impacts of this alternative could be greater than or less than the impacts of the proposed Project with regard to specific issue areas. As a variation of this alternative, the site could be developed with higher density product in the lower elevations in a “cluster development” fashion, leaving increased natural open space in the northeastern areas and reducing the extent and cost of infrastructure improvements and site grading. The Deutsch Specific Plan presently allows for this flexibility with cluster development and mixed use overlays in the residential Planning Areas. This Alternative would overall have similar or reduced impacts in comparison to the Project, and is considered the Environmentally Superior Alternative.

Active Adult Land Use Plan Alternative

This alternative assumes that the Planning Areas 40-49 and 53-59 would be designated as exclusively age restricted, “active adult” homes (assumed to be 1,700 dwelling units [DU]). A total of 5,387 DU would still be constructed with this alternative. These age-restricted planning areas would take access off the North Loop Collector Road. Under an age-restricted, “active adult” homes scenario, the North Loop Road could be proposed as a gated, access-controlled private roadway. All other aspects of this alternative would be similar to the proposed Project. This option, in fact, is presently permitted within the proposed Butterfield Specific Plan, as a variation to the traditional single family housing (the Specific Plan includes two adult living scenarios, ranging from 1,460 to 2,042 DU). The net effect of the senior housing in these PAs would be approximately 53,000 average daily trips (ADT) in comparison to the Project’s 62,263 ADT (due to reduced trip generation rates for senior housing)⁵. This Alternative would have an overall similar or reduced impact in comparison to the Project, and remains as a potential implementation option under the proposed Specific Plan.

⁵ Using ITE trip generation rates, 1,700 DU of senior housing results in approximately 6,600 ADT, with 10% internal trip capture, yields 6,000 ADT in offsite trip generation. This compares to approximately 15,300 ADT (17,000 ADT with 10% internal trip capture) with traditional single family housing, or approximately 9,000 ADT less than the proposed Project.

No Golf Course Alternative

This alternative reflects the Specific Plan's option of not developing the proposed golf course in Planning Areas 35 and 39. This alternative assumes that other types of open space and recreational uses would be permitted as alternatives in the event the golf course is not developed due to market conditions or other considerations. These alternative uses include various combinations of parks, trails, native habitat, drainage facilities, water quality improvements, groundwater recharge areas, and wetland mitigation areas. This Alternative would result in slightly reduced impacts in comparison to the Project, due to possible slight reduction in traffic and water demands, depending on the alternative recreation options implemented. In addition, this Alternative would likely result in reduced grading or the ability to grade in phased increments, since the proposed Project would need to grade the entire golf course Planning Area at once.

Conclusion

An "Alternative Site" Alternative is not applicable, as the Project represents a revision to a previously approved Specific Plan. The Reduced Density Alternative is considered the Environmentally Superior Alternative, as it would have similar grading and surface disturbance impacts (biology, geology, archaeology, visual), with proportionate reductions in impacts related to Project density (approximately a 20% reduction in traffic, air quality, noise, public service/utility demands, water demands, etc). These reductions would reduce, but not avoid, the identified Unavoidable Significant Impacts of the Project. It should also be noted that the Project itself can be considered an environmentally superior alternative to the currently approved Deutsch Specific Plan, and that the applicant has already modified the proposed Land Use Plan in response to City staff comments and input from the public during the Project scoping process (refer to Section 2.3.1, *Scope of the Draft EIR*).

1.5 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Section 15123 (b)(2) and (3) requires that the EIR summary identify areas of controversy known to the lead agency, issues raised by agencies and the public, and issues to be resolved, including the choice among alternatives and whether, or how to, mitigate significant adverse physical impacts. Based on City staff's review of available information and comments received from the general public and other public agencies in response to the Notice of Preparation and public scoping meetings (Appendix A), the following issues may be either controversial or require further resolution before making an informed decision on the project:

Climate Change

There is no absolute consensus in the State of California among CEQA lead agencies regarding the analysis of global climate change and the selection of significance criteria. To this point, while the project analysis assumes CARB's Scoping plan is in effect, presently it is enjoined as a

result of litigation. *Association of Irrigated Residents et al. v California Air Resources Board, et. al* (March 2011) San Francisco Superior Court Case No, CPF-09-509562. Thus, the current uncertainty regarding emissions reaching a point of significance has resulted in numerous organizations, both public and private, releasing advisories and guidance with varying recommendations designed to assist decision-makers in the evaluation of greenhouse gas (GHG) emissions. Although the Project has incorporated reasonable and feasible mitigation measures, the Project's incremental contribution to global climate change can be considered potentially "significant" on a cumulatively considerable basis.

Traffic and Circulation

The Project Traffic Impact Assessment identifies mitigation for all Project-related and cumulative impacts in order to achieve acceptable levels of service. However, certain improvements required to mitigate Project impacts to a less than significant level are either outside the control of the City of Banning (and therefore cannot be assured of implementation) and/or have substantial right-of-way constraints (and therefore may not be fully implemented due to feasibility issues). Although the Project will be responsible for implementing all feasible Project-related improvements and will pay its fair share of the cost of implementing cumulative impact improvements, there is no assurance at this time that the City and other jurisdictions will have adequate funding to implement ultimate improvements.

Water Supply

The Project's Water Supply Assessment indicates a range of water supply, reclamation and conservation measures such that the City will be able to meet its currently projected water supply demands consistent with its draft 2010 Urban Water Management Plan. The City and Applicant recognize that local and regional water supplies are an issue of concern, and have developed a comprehensive approach for the Butterfield Specific Plan to address these concerns.

Future Approvals and Development Applications

As discussed in Section 3.9, *Required Permits and Approvals*, the Project will require various permits and approvals for future development applications. The details of these future applications will be developed over the course of Project implementation. City staff, and other responsible agencies, will use this EIR in reviewing future discretionary applications. Specifics of future development applications (tract maps, commercial site plans, schools, etc) have not yet been developed, but would be reviewed for consistency with the EIR and Specific Plan. As noted in Section 3, Project Description, the Specific Plan allows for a variety of uses within various Planning Areas, including various optional uses such as Adult Housing, a Community Center, a Commercial Overlay, and various permitted and conditionally permitted uses within the commercial and recreation/open space areas.

1.6 DISAGREEMENT AMONG EXPERTS

This EIR contains substantial evidence to support all the conclusions presented herein. This is not to say that there will not be disagreements among various parties regarding these conclusions. Both the State CEQA Guidelines, and more particularly, case law provide the standards for treating disagreements among experts. Where evidence and opinions of experts conflict on an issue concerning the environment, and the agency knows of these controversies in advance, the EIR must acknowledge the controversies, summarize the conflicting opinions of the experts, and include sufficient information to allow the public and decision makers to take intelligent account of the environmental consequences of their actions.

This EIR acknowledges that there are ongoing differences of opinion among experts regarding how to calculate the Project's GHG emissions and whether the Project qualifies for particular reduction credits as defined in the CAPCOA Guidance manual. There may be substantial disagreement on the magnitude of the estimated Project GHG emissions, as well as the efficacy of the proposed mitigation measures. In addition, based on current technology and existing regulatory guidance, it is difficult, if not infeasible, to definitively prove that the City of Banning, by ensuring consistency with its General Plan, would or would not have a detrimental effect on global climate change. For this reason and out of an abundance of caution, the Project's incremental contribution to climate change on a cumulatively considerable basis is treated as a potentially significant impact.

SECTION 2.0

INTRODUCTION AND PURPOSE

2.1 PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

According to Section 15121 and 15362 of the State California Environmental Quality Act (CEQA) Guidelines, an EIR is an informational document that is written to inform public agency decision-makers and the public of the significant environmental effects of a proposed project. The purpose of this Draft Environmental Impact Report (DEIR) for the proposed Butterfield Specific Plan ("Project"¹) is to review the existing conditions at and in the vicinity of the Project site, identify and analyze the potential environmental impacts, and suggest feasible mitigation measures to reduce significant adverse environmental effects. The potential impacts include both temporary construction-related effects and the long-term effects of build-out of the Project.

The intent of this DEIR is to conservatively address the potential Project impacts to avoid or minimize the need for future environmental documentation of the Project by utilizing the most current and detailed plans, technical studies, and related information available. This DEIR will be used by the City of Banning (City), other responsible agencies, interested parties, and the general public to evaluate the potential environmental impacts of the proposed Project (refer to Section 3.7, Required Permits and Approvals, in Section 3.0, Project Description, of this DEIR for a list of responsible agencies and Project approvals).

2.2 COMPLIANCE WITH CEQA

The City of Banning is the lead agency under CEQA, and is responsible for preparing an Environmental Impact Report (EIR) for the Butterfield Specific Plan (State Clearinghouse No. 2007091149). The City determined that the Project may result in significant adverse environmental effects and therefore requires an EIR. This determination is based on the preliminary review of available Project information and the Expanded Notice of Preparation (NOP)². This EIR has been prepared in conformance with CEQA (California Public Resources Code Section 21000 et seq.), California CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.), and the rules, regulations, and procedures for implementation of CEQA, as adopted by the City of Banning. The principal CEQA Guidelines sections governing content of this document are Sections 15120 through 15132, Content of an EIR. This EIR has been prepared as a Subsequent EIR pursuant to CEQA Guidelines Section 15162.

¹ As discussed further in Section 3, Project Description, the "Project" addressed in this EIR includes all phases, actions and approvals related to the Butterfield Specific Plan, including the associated General Plan Amendment, Zone Change, and Amended Development Agreement.

² Although the proposed Project is substantially the same as the Project approved in 1993 (the Deutsch Specific Plan and EIR), and is also generally consistent with the City of Banning General Plan, the City elected to prepare a Subsequent EIR given the elapsed time, changes in regulatory environment, additional Project information and technical studies that have become available, and to more accurately evaluate the impacts of the Amended Specific Plan.

The EIR evaluates the issues and impacts identified as potentially significant in the Expanded NOP, issued on September 28, 2007, in addition to issues identified in the Public Scoping meetings, which were held on October 16, 2007 at 2:00 pm and at 6:00 pm, and on October 22, 2007 at 6:00 pm (refer to the discussion below in Section 2.4, *Scoping Process*, and see Appendix A, *Expanded NOP and Public Comments* for a full set of NOP comments). The EIR reflects information obtained throughout the EIR process, including extensive discussions with City staff, other key stakeholders, and the results of various technical studies cited in the EIR.

In accordance with Section 15121 of CEQA, a primary purpose of this EIR is to provide decision-makers and the public with specific information regarding the environmental effects associated with the Project, identify ways to minimize the significant effects of the Project, and describe reasonable alternatives to the Project. As a means of reducing significant impacts where feasible, mitigation measures are provided, which may be adopted as Conditions of Approval. In addition, this EIR is the primary reference document in the formulation and implementation of a Mitigation Monitoring and Reporting Program for the Project, which is required by CEQA Guidelines Section 15097.

In the event the Project results in significant impacts even with implementation of recommended mitigation measures, the decision-makers may nonetheless approve the Project based on a "Statement of Overriding Considerations", pursuant to CEQA Guidelines Section 15093. This determination would require the decision-makers to provide a discussion of how the benefits of the Project outweigh identified unavoidable impacts. This and other CEQA-related findings are typically included as attachments to staff reports and resolutions prepared for Planning Commission and/or City Council consideration (which will occur following close of the 45-day DEIR public review period). The CEQA Guidelines provide in part the following:

- a) CEQA requires that the decision-maker balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve the project. If the benefits of the project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."
- b) Where the decision of the public agency allows the occurrence of significant effects that are identified in the Final EIR, but are not mitigated, the agency must state in writing the reasons to support its action based on the Final EIR and/or other information in the record.
- c) If an agency makes a Statement of Overriding Considerations, the statement should be included in the record of the project approval and should be mentioned in the Notice of Determination (Section 15093 of the CEQA Guidelines).

As part of the review process, and pursuant to Section 15105 of the CEQA Guidelines, this Draft EIR will be circulated for review and comment by the public and other interested parties, agencies, and organizations for a period of 45 days in accordance with Sections 15087 and 15105 of the CEQA Guidelines. Following this period, responses to comments received from these

agencies will be prepared. The Final EIR will consist of the Draft EIR (or a revision of the draft), comments received on the Draft EIR, and responses to those comments.

The City will distribute the proposed Final EIR to individuals that request it, and to those that comment on the Draft EIR. The proposed Final EIR will be available to the general public at least 10 days prior to the City's Final EIR certification.

2.3 SCOPE AND ORGANIZATION OF THE EIR

2.3.1 SCOPE OF THE DRAFT EIR

In accordance with CEQA Guidelines Section 15082, an NOP was completed for the proposed Project to initiate the City's CEQA review process for the Project, identify potential environmental impacts of the Project, seek public input regarding potential environmental impacts, and to announce public scoping meetings for the Project (refer to Appendix A and the discussion below). The City of Banning distributed the NOP, which was filed with the State of California Office of Planning and Research on September 28, 2007. The NOP comment period closed on October 29, 2007, following the State-mandated 30-day public review period.

Three public scoping meetings were held to discuss the proposed Project on the following dates: Tuesday October 16, 2007 at 2:00 pm and at 6:00 pm, and Monday October 22, 2007 at 6:00 pm. The following represents a summary of public comments at the public scoping meetings. These comments, together with the formal NOP comment letters received, were carefully considered during the EIR preparation process, and in some cases resulted in modifications to the proposed Land Use Plan (refer to Appendix A for the NOP, public noticing, and a full set of NOP comments).

- Wildfire hazards in the area should merit a fire substation within the proposed Project site
- Land use compatibility with existing surrounding neighborhoods (particularly to the east of the Project site) [the land use plan was revised in response to this comment]
- Local and regional traffic impacts
- Wildlife and migration impacts
- Noise, light and glare impacts
- Water supply impacts, recycled water and drought-tolerant landscaping
- Community character, cohesion and quality of development
- Erosion and fault hazards
- Views of Project and vicinity from surrounding neighborhoods
- Location of the satellite wastewater treatment plant
- Existing biological resources (particularly the oak tree near Highland Springs Road)
- Public services and utilities – park accessibility, fire station, school districts

- Population and housing impacts
- Cultural and historic impacts (i.e., Bradshaw Trail)

This EIR (State Clearinghouse No. 2007091149) addresses potential significant impacts in the following areas as identified during the EIR preparation process, including public and agency comments received on the NOP, as well as comments received from the public during separate scoping meetings. In addition to CEQA-mandated discussions, environmental issues evaluated within this EIR are as follows:

- Aesthetics, Light, and Glare (Section 4.1)
- Agricultural Resources (Section 4.2)
- Air Quality (Section 4.3)
- Biological Resources (Section 4.4)
- Climate Change (Section 4.5)
- Cultural and Historic Resources (Section 4.6)
- Geology, Soils, and Seismicity (Section 4.7)
- Hazards and Hazardous Materials (Section 4.8)
- Hydrology and Water Quality (Section 4.9)
- Land Use and Planning (Section 4.10)
- Noise (Section 4.11)
- Public Services and Utilities (Section 4.12)
- Transportation and Traffic (Section 4.13)
- Water Supply (Section 4.14)

2.3.2 ORGANIZATION OF THE DRAFT EIR

The Draft EIR is organized into 10 sections:

- **Section 1.0, *Executive Summary***, provides a brief Project description and summary of the environmental impacts, and the mitigation measures for each impact.
- **Section 2.0, *Introduction and Purpose***, provides CEQA compliance information.
- **Section 3.0, *Project Description***, provides the Project location, background and history, environmental setting (including on and offsite use), Project characteristics, Project objectives, Project phasing, and permits and approvals that are required for the Project.
- **Section 4.0, *Environmental Analysis***, discusses the existing conditions for each environmental issue area. This section describes the methodology for significance determination; identifies short-term and long-term environmental impacts of the Project;

recommends feasible mitigation measures to reduce the significance of impacts; and identifies areas of unavoidable significant impacts after mitigation. Cumulative impacts are discussed within each respective topical section, with an introduction to cumulative impact methodology provided in Section 4.0.

- **Section 5.0, *Long-Term Implications of the Proposed Project***, discusses the significant environmental changes that result from the Project, should it be implemented; and growth-inducing impacts.
- **Section 6.0, *Alternatives to the Proposed Project***, describes alternatives to the Project, some of which may be considered during Project deliberations.
- **Section 7.0, *Effects Found Not to Be Significant***, explains potential impacts that were determined not to be significant in the Expanded NOP.
- **Section 8.0, *Organizations and Persons Consulted***, identifies the co-lead agencies, preparers of the EIR, and all federal, state, and local agencies, and other organizations, and individuals consulted during the preparation of the EIR.
- **Section 9.0, *Bibliography***, identifies reference sources utilized for the EIR.
- **Section 10.0, *Appendices***, contains reports of technical studies conducted for the EIR and Project-related data.

2.4 PUBLIC SCOPING PROCESS

Pursuant to state and local CEQA Guidelines, the City initiated the Project environmental review process and distributed the NOP on September 28, 2007 for a 30-day public review period; refer to the summary above and to Appendix A, *Expanded NOP and Public Comments*. The City will also hold a public meeting during the 45-day DEIR public review period, in order to summarize DEIR conclusions and receive public comments on the DEIR. All formal comments on the DEIR will be responded to in writing, and will be included in the Final EIR, pursuant to CEQA Guidelines Section 15088.

The Draft EIR and all technical documents used in the preparation of the analysis are available at the following:

City of Banning Community Development Department
99 E. Ramsey Street
Banning CA, 92220
Online at: <http://www.ci.banning.ca.us/index.aspx>

Copies of the Draft EIR are also available at the following local library:

Banning Library District
21 W. Nicolet Street

Banning, CA 92220-4607

Upon completion of the 45-day review period, written responses to all comments on the environmental issues discussed in the Draft EIR will be prepared and incorporated into a Final EIR. Furthermore, written responses to comments received from any agencies will be made available to those agencies at least ten days prior to the public hearing at which certification of the Final EIR will be considered.

2.5 USE OF THE DRAFT EIR

This EIR is part of the development review process for the Project proposed by Pardee Homes ("Applicant"). It is the intent of this EIR to enable the City and other responsible agencies and interested parties to evaluate the environmental impacts of the proposed Project. Refer to Section 3.9, *Required Permits and Approvals* for a list of responsible agencies having permit approval responsibilities for the Project.

2.6 DOCUMENTS INCORPORATED BY REFERENCE

Pertinent documents relating to this EIR are cited and incorporated by reference, in accordance with Section 15150 of the CEQA Guidelines, as a means of reducing the redundancy and length of environmental reports.

The following documents are available for public review at the City of Banning Community Development Department, located at 99 E. Ramsey St., Banning CA, 92220, and are hereby incorporated by reference into this Draft EIR. Information contained within these documents has been utilized for sections throughout this Draft EIR.

2.6.1 CITY OF BANNING GENERAL PLAN AND EIR, 2006 (SCH# 2005011039)

The City of Banning General Plan and the EIR for that document serve as the major tools for directing growth within the City and present a comprehensive plan to accommodate the City's growing needs. The General Plan analyzes existing conditions in the City including physical, social, cultural, and environmental resources and opportunities. The General Plan examines trends, issues, and concerns that affect the region, includes City goals and objectives, and provides policies to guide development and change. Additionally, the General Plan EIR documents the potential environmental impacts of General Plan buildout. The City of Banning General Plan and EIR were used primarily to analyze issues regarding land use, natural resources, traffic, and hydrologic impacts associated with the proposed Project. The City of Banning General Plan and EIR are available for review at the City of Banning Community Development Department.

2.6.2 COUNTY OF RIVERSIDE GENERAL PLAN AND EIR, 2003 (SCH# 2002051143) AND GENERAL PLAN 2008 UPDATE

The County of Riverside General Plan and EIR serve as the major tools for directing growth within Riverside County (County) and present a comprehensive plan to accommodate the County's growing needs. Currently this document regulates the existing land uses within the northwest corner of the Project area. That General Plan analyzes existing conditions in the County, including physical, social, cultural, and environmental resources and opportunities. The Plan looks at trends, issues, and concerns that affect the region, includes County goals and objectives, and provides policies to guide development and change. Additionally, the General Plan EIR documents the potential environmental impacts of General Plan buildout. The County of Riverside General Plan and EIR were used primarily to analyze issues regarding land use, natural resources, traffic, and hydrologic impacts associated with the proposed Project.

Since the County of Riverside 2003 General Plan and EIR adoption, there have been eighty-three General Plan Amendments adopted by the Riverside County Board of Supervisors through a series of resolutions as of December 2008. The amendments include land use designation, text and map (Land Use Element, Circulation Element, Area Plans, Policy Areas, etc.) modifications. The text and land use amendments have been incorporated into the General Plan document. Links to the updated General Plan (General Plan 2008) and General Plan Amendment Summary can be accessed at http://www.rctlma.org/genplan/general_plan_2008/general_plan_2008.aspx, and are also available for review at the City of Banning Community Development Department.

2.6.3 DEUTSCH SPECIFIC PLAN EIR (SCH# 90020698)

The Project site is currently entitled through the Deutsch Specific Plan and EIR, which were adopted by the City of Banning on October 26, 1993 by Resolution No 1993-134. The 1993 EIR evaluated potential environmental impacts of a 5,400-unit development nearly identical to the proposed Project (see Section 3.0, *Project Description*, for additional discussion and comparison). As such, the 1993 EIR was used for historical information, and was referenced in the environmental impact analysis throughout this current EIR. Each topical impact section in this EIR provides a brief summary of key conclusions in the 1993 EIR as a reference for the reader. The 1993 Specific Plan (which is currently the governing land use document for the Project site) and the 1993 EIR are both available for review at the City of Banning Community Development Department.

2.6.4 GROUNDWATER RECHARGE PROGRAM FINAL EIR, MARCH 2003, BEAUMONT-CHERRY VALLEY WATER DISTRICT (SCH# 20020710080)

This EIR addresses the impacts of State Water Project (SWP) recharge within the Noble Creek area. The Butterfield Specific Plan may utilize the Noble Creek recharge area as one component of its overall water supply portfolio. As the impacts associated with the recharge facility have been addressed in this cited EIR, the Butterfield Specific Plan EIR only addresses any incremental additional impact. The District proposes to construct surface water capture facilities that would include desilting basins and ponds, transfer pipelines, channel improvements, constructed wetlands and recharge ponds. Surface water captured in the two creeks would be piped via gravity downstream to the convergence of the two creeks, to the proposed Recharge Facilities/Community Park (RF/CP) site where recharge ponds would be constructed to facilitate percolation into the Beaumont Basin. The proposed Project would also require construction of underground piping to transport recycled water and/or water from the State Water Project (SWP) into Bogart County Park for release into Noble Creek. Recycled water would be supplied from the City of Beaumont Wastewater Treatment Facility No. 1. SWP water would be delivered through a connection to the East Branch Extension of the state water lines, located where Orchard Street meets Noble Creek.

2.6.5 PROJECT DESIGN DOCUMENTS

This Draft EIR is based upon review of available Project-design documents and various technical studies prepared by the Applicant (and independently reviewed by the City) and City's consultants; see Section 9.0, *Bibliography*.

2.6.6 REFERENCED TECHNICAL DOCUMENTS

Technical documents related to this EIR are cited in accordance with Section 15148 of CEQA Guidelines, to assist in reducing the length of environmental reports. Information contained within the following technical documents has been used throughout this EIR:

- City of Banning Draft 2010 Urban Water Management Plan (UWMP)
- City of Banning 2005 Urban Water Management Plan (UWMP). Note: City of Banning UWMP is incorrectly listed on the SCAG web-site under San Bernardino County. <http://www.scag.ca.gov/rcp/uwmp.htm>
- Southern California Association of Governments Regional Comprehensive Plan (Final) <http://www.scag.ca.gov/rcp/index.htm>
- Southern California Association of Governments Compass Blueprint <http://www.compassblueprint.org/>
- Southern California Association of Governments Regional Housing Needs Assessment <http://www.scag.ca.gov/housing/rhna/index.htm>

- South Coast Air Quality Management District Air Quality Management Plan
<http://www.aqmd.gov/aqmp/07aqmp/07AQMP.html>

In addition, technical reports prepared for the proposed Project are referenced within the corresponding impact section throughout this EIR. These Project-specific technical studies are contained within Section 10.0 of this EIR, and are also available for review at the City of Banning Community Development Department, located at 99 E. Ramsey St., Banning CA, 92220, as well as the City's website (www.ci.banning.ca.us) and at the City of Banning Public Library, located at 21 W. Nicolet Street, Banning, CA 92220.

SECTION 3.0

PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The proposed Project site (hereinafter the “Butterfield Specific Plan” or “Project”) consists of 20 existing legal lots, covering 1,522 acres, owned by Pardee Homes and an additional 21-acre lot owned by the Highland Springs County Club Owner’s Association. The site is generally located north of I-10 Freeway within the northwestern portion of the City of Banning adjacent to the City of Beaumont and unincorporated areas of the County of Riverside, within the San Gorgonio Pass, an area that links the Riverside and Perris Valleys to the Coachella Valley; refer to Exhibit 3.0-1, *Regional Vicinity Map*. Specifically, the Project is located north of Wilson Street, east of Highland Springs Road, west of Highland Home Road, north and northwest of the present terminus of Highland Home Road, and south of the unincorporated portion of Riverside County, generally north of the extended alignment of Brookside Avenue into the San Bernardino Mountain foothills; refer to Exhibit 3.0-2, *Local Vicinity Map*. The Project site is generally surrounded by unincorporated Riverside County and portions of the San Bernardino Mountains to the north and northeast, Highland Home Road, and the Banning Bench to the east, the City of Beaumont and existing residential to the east and south, Wilson Street to the south, and Highland Springs Avenue and the City of Beaumont to the west. Regional access to the Project site is via I-10, located south of the Project site.

3.2 EXISTING AND SURROUNDING LAND USES

In 1993, the City approved the Deutsch Specific Plan, which covered most of the Project site; refer to Section 3.4 below, *Background and History*. While the Project site is currently vacant and undeveloped, the site is General Plan-designated for a mix of commercial, high-density residential, medium-density residential, low-density residential, very low-density residential and parkland land uses with a Specific Plan Overlay; refer to General Plan Land Use Map. According to the City’s most-current Zoning Map, the Project site is variously zoned for general commercial, high-density residential (i.e., 11-18 dwelling units per acre), low-density residential (i.e., 0-5 dwelling units per acre), very low-density residential (i.e., 0-2 dwelling units per acre), public facilities, and open space-parks, all with a Specific Plan Overlay.

Property surrounding the Project site to the north and northeast includes vacant, privately owned lands and parts of the San Bernardino National Forest. Land uses to the west of the Project site include the Sundance Specific Plan residential development in the City of Beaumont. To the northwest of the Project site, north of Brookside Avenue, are unincorporated areas and the existing Highland Springs County Club residential and golf course development. Further northwest of the Project site is the Highland Springs Mobile Home Village. To the south of the Project site, north of Wilson Street, is a mix of high-density multi-family housing developed at 8.1 to 16 dwelling units/acre (du/ac) and low-density single-family homes developed at a density of 2.4 to 4.1 du/ac. Property south of Wilson Street and north of the I-10 Freeway is

designated for Highway and Community Commercial, office, hospital, mobile home park, and residential uses in the City's General Plan.

North: To the north, the Project site is largely bordered by undeveloped private property, and open space, including the San Bernardino National Forest. To the northwest, the Project site abuts a small golf course and residential neighborhood.

Zoning: Properties north of the Project site are located in the County of Riverside and are variously zoned for medium-density residential development, open space-park, ranch/agriculture-hillside, and open-space-resources

South: Wilson Street and existing residential and commercial development are located immediately south of the site's property line. South of Wilson Street is a mix of existing commercial, single family and multifamily uses. The San Geronio Hospital occupies the southeast corner of Wilson Street and Highland Springs Avenue, opposite the Project site. The I-10 Freeway corridor is located one-half mile to the south of the Project site and traverses in an east-west direction.

Zoning: Developed properties located north of Wilson Avenue along the Project's south property line are variously zoned for high-density residential and medium-density residential uses. Properties on the south side of Wilson Street are variously zoned for public facilities-hospital, professional office, high-density residential and medium-density residential uses.

East: To the northeast, the Project site is largely bordered by undeveloped private property and the undeveloped Banning Bench area in the foothills of the San Bernardino Mountains. Highland Home Road traverses the southeast boundary of the site. On the east side of Highland Home Road there are several existing single-family residential neighborhoods.

Zoning: Existing and proposed development east of the Project site is variously zoned for medium-density residential, very low-density residential and ranch/agriculture - hillside

West: To the west, the Project site is bordered Highland Springs Road and the City of Beaumont, West of Highland Springs Avenue are single-family residences located within the Sundance Specific Plan development and vacant, undeveloped property in both the City of Beaumont and the unincorporated County of Riverside. Southwest of the Project site is commercial development and multi-family residential development. West of Highland Springs Avenue Wilson Street is identified as 8th Street.

Zoning: Properties west of the Project site are located in the City of Beaumont or in unincorporated Riverside County. Within the City of Beaumont west of Highland Springs Avenue and north of 8th Street property is zoned for Specific Plan with the exception of a park site on 8th Street, zoned for Recreation and Conservation. South of 8th Street property is zoned for General and Community commercial uses and multifamily residential use.

3.3 PROJECT OBJECTIVES

Section 15124(b) of the CEQA Guidelines indicates that an EIR should include “a statement of objectives sought by the proposed Project.” The Specific Plan was prepared to achieve the following Project objectives:

- **Master Planned Community:** Design and implement the development of a creatively-designed master planned community that expresses and embodies the City’s vision of its future as articulated in the fundamental land use principals, policies, and objectives of the City’s General Plan;
- **Update the Deutsch Specific Plan:** Update and restate the prior approved 1993 Deutsch Property Specific Plan based on current and projected market conditions while maintaining the Plan’s underlying concept of comprehensive and cohesive development planning that allows for the appropriate physical and economic development of the property;
- **Provide a Quality, Livable Community:** Provide a quality, livable community through the implementation of a Specific Plan that will ensure a consistent quality of design, allow for the provision and maintenance of community amenities, and create a collection of cohesive, well-defined neighborhoods that provide residents with a clear sense of place and identity within the diverse fabric of the larger community;
- **Provide a Wide Range of Housing Opportunities:** Provide a range of high quality housing opportunities by developing a diverse range of housing types available at a variety of price points, responsive to market demand, varying lifestyles, and the developing economic profile of the community;
- **Promote Sustainability:** Promote the concept of sustainable community development by implementing green building practices in the selection of construction materials, the recycling of construction waste, and the use of energy and water efficient building practices;

- **Incorporate Water and Energy Efficiency:** Incorporate energy and water efficient design and technology into the homes, commercial buildings, and landscape of the Butterfield development;
- **Conserve Water Resources:** Conserve water resources and reduce demand for potable water within the Specific Plan area by maximizing the use of recycled water wherever appropriate, including the potential development of on-site recycled water treatment capacity, if needed;
- **Increase Employment Opportunities:** Increase local job opportunities through the approximate 30 year build out;
- **Ease of Navigation:** Create a community that is easy to navigate through careful use of landscape, signage, and entry design based on the Specific Plan's design objectives;
- **Recreational Amenities:** Provide recreational amenities which will serve the needs of neighborhood residents and others in the City of Banning as well as nearby communities;
- **Safe and Efficient Circulation:** Provide a safe and efficient roadway network, linking all internal elements of the planned community with the surrounding area;
- **Encourage Alternative Transportation:** Encourage alternative transportation choices through the creation of a walkable community with well-defined pedestrian linkages between neighborhoods, amenities, schools, and commercial uses, the provision of bike paths, the creation of LSV/NEV linkages, and the development of multi-purpose trails;
- **Promote Community Security:** Promote community security and safety through appropriate outdoor lighting, the incorporation of "defensible space" concepts in the design of multifamily developments, and by encouraging community involvement through the area's master homeowners association;
- **Address Drainage and Water Quality Issues:** Provide adequate drainage, flood control and water quality improvements, which satisfy applicable local, state and federal criteria while respecting and enhancing/preserving natural drainage functions and features;
- **Ensure Provision of Public Services:** Ensure provision of adequate public services, utilities and infrastructure in a timely manner as development occurs; and
- **School Facilities:** Ensure provision of adequate education facilities within the planned community, pursuant to applicable school district and state requirements.

3.4 BACKGROUND AND HISTORY

Prior to its acquisition by Pardee Homes, the Project site was owned and entitled for development by the Deutsch Corporation. The Deutsch Corporation initiated the Deutsch Specific Plan in 1981. An EIR for the original project was originally certified in 1985, concurrent with the approval of a General Plan Amendment for the Project and annexation of the majority of the Project area into the City of Banning. In 1992, an amendment to the Specific Plan to allow the development of a total of 5,400 residential units was initiated. This amendment was approved in 1993, together with a Subsequent EIR and a Development Agreement for the Project. Permitted residential uses pursuant to the amended Deutsch Specific Plan included low-density/single-family residential detached, patio home, apartment, and senior housing. The approved Deutsch Specific Plan also included 25 acres of commercial development, 24 acres for school sites, a 1-acre fire station site, approximately 75 acres of parks, a 193-acre golf course, and 83 acres of backbone roadways. The land uses and their locations are generally depicted in the City's current General Plan Land Use Map and Zoning Map. The balance of the Specific Plan area was annexed to the City of Banning in 1995; however, development of the Deutsch Specific Plan Project did not move forward at that time.

In August 2007, subsequent to its acquisition of the Project site, Pardee Homes submitted an application for a comprehensive amendment and restatement of the Deutsch Specific Plan, and renamed the Project '*Butterfield*'. That amendment is the subject of this EIR. The Butterfield Specific Plan includes various land use adjustments to address site conditions and to meet demands of the current marketplace and regulatory environment. The Project proposes a total of 5,387 residential units as compared to the 5,400 units permitted pursuant to the currently approved Deutsch Specific Plan. The average gross density of the proposed Project would remain 3.5 dwelling units per acre (du/ac); however, the total area of the Project would be approximately 1,543 acres and is slightly less than the total 1,552 acre area covered by the Deutsch Specific Plan. An Initial Study was completed for the Butterfield Specific Plan and the need for a Subsequent EIR was identified; refer to Section 2.4, *Public Scoping Process*, for a description of the Project's current CEQA review process.

In January 2008, the City approved Subdivision Map 34330, a conveyance map for the Project site, which re-subdivided the Specific Plan area into 20 legal lots for financing purposes and was recorded on May 27, 2008.

Approximately 1,522 acres of the proposed Butterfield Project is within the municipal boundaries of the City of Banning and approximately 21 acres are located within unincorporated Riverside County and the City of Beaumont's Sphere of Influence. Additionally, several off-site infrastructure improvements are included as part of the proposed Project, the effects of which are considered in the environmental analysis provided in this document. References in this document to the "Project study area" or "Specific Plan Project

area” should be understood to include the Specific Plan Project site and all off-site improvements.

3.5 ENVIRONMENTAL SETTING

The proposed Project is located in the northwest corner of the City of Banning, north of Wilson Street, west of Highland Home Road, and east of Highland Springs Avenue, at the boundary between the City of Banning and the City of Beaumont. The City of Banning is located in the San Gorgonio Pass, which divides the San Jacinto Mountains to the south from the San Bernardino Mountains to the north. The City’s annual mean temperature ranges from the low to middle 60’s in degrees Fahrenheit (°F). Typical summertime highs are in the 90’s and wintertime temperatures are generally in the 50’s. Average annual precipitation in the City of Banning is approximately 17.60 inches per year, most of which falls from November to April.

Much of the Project site’s topography is relatively flat, slopes gently from north to south, and is sparsely vegetated with non-native grasses such as wild oat and brome grass. The lack of topographic relief is due in part to topographic modification in the past, when much of site was used for farming and livestock grazing. The most northerly and northeasterly portions of the site rise steeply into rugged, chaparral-covered foothills. The site’s elevation varies from over 3,400 feet above mean sea level (amsl) in the northeastern portion of the Project area to 2,560 feet amsl at the southeastern corner. The site is traversed by two strands of the Banning fault, a component of the San Gorgonio fault zone system. At least one strand of the fault is considered potentially active and is covered by an Alquist-Priolo zone.

A majority of the Project area drains to Smith Creek, a natural drainage course that originates off-site in the San Bernardino Mountains, traverses the center of the site from north to south, and continues off-site south of Wilson Street to a confluence with San Gorgonio Creek. Smith Creek’s natural earthen channel has a sandy bottom and un-vegetated to sparsely vegetated banks. The creek bed through the site is approximately 30 feet wide at its widest point and ranges in depth from three to five feet. Approximately 323 acres in the southeast portion of the Project site drain in the existing condition to the Pershing Channel, an improved, concrete lined drainage located along the west side of Highland Home Road¹.

¹ The adjacent Tract 30906 to the east has been conditioned to improve portions of Highland Home Road. Therefore, there is a possibility that portions of Highland Home Road adjacent to the Project will be improved prior to the commencement of the Butterfield Project.

Several utility easements are located within the Project site. These include a 16.5-foot wide Southern California Gas Company easement that traverses the southern portion of the site from east to west. This easement contains a 30-inch diameter buried high-pressure natural gas line. In addition, Southern California Edison maintains a 430-foot wide easement, containing overhead high-powered utility lines with metal and wood framework towers, which traverses the central portion of the site from east to west. The easternmost portion of this easement is only 100-feet wide within the Project site, as the remaining easement is located off-site. An additional 50-foot wide SCE easement, containing overhead electrical transmission lines and wood poles, is located in the northern portion of the Project site.

Complete descriptions of the various physical characteristics of the site are found in Section 4.0 of this EIR and its sub-sections 4.1- 4.14, which provide an analysis of the Project's potential environmental impacts.

3.6 PROJECT CHARACTERISTICS

3.6.1 BUTTERFIELD SPECIFIC PLAN LAND USES

The Butterfield Specific Plan proposes residential, potential golf course, parks, open space, school sites, and commercial uses similar to those proposed by the previously adopted Deutsch Specific Plan; refer to Exhibit 3.0-3, *Land Use Plan*. The total acreage proposed within the Specific Plan is 1,543 acres. A maximum of 5,387 dwelling units could be developed pursuant to the Plan, resulting in a gross density over the entire site of 3.5 du/ac. Table 3.0-1, *Butterfield Specific Plan Land Use Summary*, lists each of the land uses proposed in the Butterfield Specific Plan. Table 3.0-2, *Butterfield Specific Plan Planning Areas Statistical Summary*, provides a Planning Area (PA) listing and statistical summary by land use category. In addition, Table 3.0-3, *Butterfield/Deutsch Specific Plan Land Use Comparison*, provides a comparison between the land uses proposed in the current Butterfield Specific Plan and those previously approved in the Deutsch Specific Plan.

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3.0 PROJECT DESCRIPTION

Table 3.0-1
Butterfield Specific Plan Land Use Summary

Land Use	Gross Acres	% of Area	Dwelling Units	% of Dwelling Units	Average Gross Density
Residential³					
Low Density (LDR) 0-5 DU/AC	539.2	35.0%	2,222	41.2%	4.1
Medium Density (MDR) 0-10 DU/AC	324.4	21.0%	1,960	36.4%	6.0
High Density (HDR) 11-18 DU/AC	73.8	4.8%	1,205	22.4%	16.4
Residential Subtotals	937.2	60.8%	5,387	100.0%	5.7
Open Space					
Golf Course/Drainage/Open Space	253.9	16.5%			
Parks	66.5	4.3%			
Natural/Landscape/Easement	70.1	4.5%			
Drainage/Open Space	38.3	2.5%			
Open Space Subtotals	428.8	27.8%			
Schools¹	23.0	1.5%			
Commercial/Office²	36.0	2.3%			
Utility Substation – Existing	4.2	0.3%			
Backbone Roads	113.6	7.4%			
SPECIFIC PLAN TOTALS	1,543	100.0%	5,387	100.0%	3.5
¹ Alternate Residential use of School sites at up to 10 DU/AC is provided. ² Alternate Residential use or mixed use of the Commercial sites is provided for with PA 17 at up to 4.5 DU/AC (LDR) and PA 18 at up to 10 DU/AC (MDR). The overall DU total for the Specific Plan shall not exceed 5,387 DU. In addition, Commercial use is allowed as an alternate use for all or a portion of Residential PAs 3, 4 and 5 (51.4 acres combined), and Park PAs 26 and 27 (0.9 acres combined). ³ The Specific Plan allows for cluster development and Active Adult residential within certain Planning Areas, as described in detail within the Specific Plan (Section 3.1.1.1, Residential).					

Table 3.0-2
Butterfield Specific Plan Planning Areas Statistical Summary

Planning Areas	Land Use	Gross Acres	Dwelling Units	Density (DU/AC)
RESIDENTIAL:				
1A	LDR	21.2	91	4.3
1B	MDR (Model Site)	2.8	10	3.6
1C	MDR	2.7	13	4.8
2	LDR	21.1	86	4.1
3	LDR	18.5	78	4.2
4	MDR	14.7	78	5.3
5	MDR	18.2	183	10.0
6	LDR	16.3	81	5.0
7	LDR	17.4	77	4.4
8	MDR	26.0	133	5.1
9	MDR	31.6	185	5.8
10	MDR	17.4	139	8.0
11	MDR	26.9	252	9.4
12	MDR	9.2	49	5.3
13	MDR	8.7	69	7.9
14	LDR	21.5	94	4.4
15	HDR	31.2	512	16.4
16	HDR	25.2	413	16.4
40	LDR	24.8	98	4.0
41	LDR	22.6	100	4.4
42	MDR	22.6	116	5.1
43A	MDR	19.6	104	5.3
43B	MDR	19.1	113	5.9
44	LDR	25.2	122	4.8
45	LDR	27.8	113	4.1
46	LDR	25.5	105	4.1
47	LDR	32.8	160	4.9
48	LDR	28.5	108	3.8
49	MDR	26.0	129	5.0
50	LDR-7500	34.8	159	4.6
51	MDR-7200	22.6	102	4.5
52	LDR-7500	31.6	129	4.1
53	MDR	14.8	80	5.4
54	MDR	4.0	20	5.0
55	LDR	26.8	126	4.7

Table 3.0-2 (continued)
Butterfield Specific Plan Planning Areas Statistical Summary

Planning Areas	Land Use	Gross Acres	Dwelling Units	Density (DU/AC)
56	LDR	22.6	83	3.7
57	MDR	16.3	63	3.9
58	MDR	21.2	122	5.7
59	HDR	17.4	280	16.1
60	LDR-10000	60.8	205	3.4
61	LDR-10000	59.4	207	3.5
RESIDENTIAL TOTALS		937.4	5,387	5.8
OPEN SPACE				
	Golf Course/Drainage			
35	Golf Course/Drainage	247.8		
39	Golf Course/Club House	6.1		
	Subtotal	253.9		
	Parks			
21	Neighborhood Recreation PK	3.7		
22	Neighborhood – Mini Park	1.6		
23	Neighborhood – Mini Park	0.5		
24	Neighborhood – Mini Park	0.6		
25	Neighborhood – Mini Park	0.8		
26	Neighborhood – Mini Park	0.5		
27	Neighborhood – Mini Park	0.4		
28	Neighborhood – Mini Park	0.6		
29	Neighborhood – Mini Park	0.8		
30	Neighborhood – Mini Park	0.4		
31	Neighborhood – Mini Park	0.9		
32	Neighborhood – Mini Park	0.7		
33	Neighborhood – Mini Park	0.5		
34	Neighborhood – Mini Park	1.7		
36	Community Park	9.5		
37	Community Park	15.1		
38	Community Park	16.4		
62	Neighborhood – Mini Park	0.7		
63	Neighborhood Recreation PK	4.3		
64	Neighborhood – Mini Park	0.9		
65	Neighborhood – Mini Park	2.0		
66	Neighborhood – Mini Park	1.4		

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Table 3.0-2 (continued)
Butterfield Specific Plan Planning Areas Statistical Summary

Planning Areas	Land Use	Gross Acres	Dwelling Units	Density (DU/AC)
67	Neighborhood – Mini Park	1.7		
72	Neighborhood – Mini Park	0.8		
	Subtotal	66.5		
Natural/Landscape/Easement				
69	Open Space/Fuel Mod	4.6		
73	Northerly Open Space	56.3		
74	Landscape Easement	4.4		
75	Open Space/Fuel Mod	4.8		
	Subtotal	70.1		
Drainage/Open Space				
19	South Channel	7.9		
71	North Basin	30.4		
	Subtotal	38.3		
SCHOOLS¹				
20	Beaumont U. S. D.	11.7		
68	Banning U. S. D.	11.3		
	Subtotal	23.0		
COMMERCIAL/OFFICE²				
17	Commercial Parcel	13.0		
18	Commercial Parcel	23.0		
	Subtotal	36.0		
70	UTILITY SUBSTATION	4.2		
ROW	BACKBONE ROADS	113.6		
	SPECIFIC PLANS TOTAL	1,543.0	5,387	3.5

Notes:

LDR: Low Density Residential 2-5 DU/AC
 LDR-10,000: Min. Avg. Lot Size = 10,000 SF
 MDR-7,200: Min. Avg. Lot Size = 7,200 SF

LDR-7,500: Min. Avg. Lot Size = 7,500 SF
 MDR: Medium Density Residential 0-10 DU/AC
 HDR: High Density Residential 11-18 DU/AC

1. Alternate Residential use of School sites at up to 10 DU/AC is provided. The overall dwelling unit total for the Specific Plan shall not exceed 5,387 DU in any case.
2. Alternate Residential use or mixed use of the Commercial sites is provided with PA 17 at up to 4.5 DU/AC (LDR) and PA 18 at up to 10 DU/AC (MDR). The overall Dwelling Unit total for the Specific Plan shall not exceed 5,387 DU in any case. In addition, Commercial use is allowed as an alternate use for all or a portion of Residential PAs 3, 4 and 5 (51.4 acres combined), and Park PAs 26 and 27 (0.9 acres combined).

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Draft Subsequent EIR

3.0 PROJECT DESCRIPTION

Table 3.0-3
Butterfield/Deutsch Specific Plan Land Use Comparison

Butterfield Specific Plan* Land Use Summary						Deutsch Specific Plan Land Use Summary					
Land Use	Gross Acres	% Of Area	Dwelling Units	% Of Dwelling Units	Average Gross Density (DU/AC)	Land Use	Gross Acres	% Of Area	Dwelling Units	% Of Dwelling Units	Average Gross Density (DU/AC)
RESIDENTIAL						RESIDENTIAL					
Low Density - 0-5 DU/AC	539.2	35.0%	2222	41.2%	4.1	Low Density - 0-5 DU/AC	656	42.3%	1946	36%	3.0
Medium Density - 0-10 DU/AC	324.4	21.0%	1960	36.4%	6.0	Medium Density - 5-10 DU/AC	390	25.1%	1950	36%	5.0
High Density - 11-18 DU/AC	73.8	4.8%	1205	22.4%	16.4	High Density - 10-18 DU/AC	89	5.7%	1184	22%	13.3
						Very High Density - 20 DU/AC (Apartments/ Senior Housing)	16	1.0%	320	6%	20.0
Residential Subtotals	937.4	60.8%	5387	100.0%	5.7	Residential Subtotals	1151	74.2%	5400	100%	4.7
NON-RESIDENTIAL						NON-RESIDENTIAL					
Golf Course	253.9	16.5%				Golf Course	193	12.4%			
Parks	66.5	4.3%				Parks	75	4.8%			
Open Space ¹	108.4	7.0%				Open Space					
Schools ³	23.0	1.5%				Schools	24	1.5%			
Commercial/Office ⁴	36.0	2.3%				Commercial/Office	25	1.6%			
Fire Station ²						Fire Station	1	0.1%			
Utility Substation	4.2	0.3%				Utility Substation					
Roads	113.6	7.4%				Roads	83	5.3%			
Non-Residential Subtotals	605.6	39.3%				Non-Residential Subtotals	401	25.0%			
SPECIFIC PLAN TOTALS	1543	100%	5387	100.0%	3.5	SPECIFIC PLAN TOTALS	1552	100%	5400	100%	3.5
¹ Open Space includes natural, landscape, easement, and drainage areas ² A fire station site, if City of Banning determines it is needed, is designated as a permitted use in all of the Specific Plan planning areas, except PAs 36, 37, 38, 69, 73, 74 and 75. ³ Alternate Residential use of School sites at up to 10 DU/AC is provided. ⁴ Alternate Residential use or mixed use of the Commercial sites is provided for with PA 17 at up to 4.5 DU/AC (LDR) and PA 18 at up to 10 DU/AC (MDR). The overall DU total for the Specific Plan shall not exceed 5,387 DU.											

3.6.2 ON-SITE DEVELOPMENT COMPONENTS

3.6.2.1 RESIDENTIAL PLANNING AREAS

One of the primary objectives of the Butterfield Specific Plan is to provide a variety of housing opportunities for current and future residents of the City. In furtherance of that objective, approximately 937.4 acres, or approximately 60.8 percent of the total basic land area of the Specific Plan, are planned for residential development as reflected in Exhibit 3.0-3. The Butterfield Specific Plan contains Land Use Regulations, Design Guidelines and Development Standards that would guide this development. The conceptual characteristics of each Planning Area are described below. It is anticipated that, in the course of designing and processing tract maps to implement the Specific Plan, some of the projected characteristics of the various Planning Areas, including the total number of units, may undergo limited modifications. These modifications are allowed pursuant to the Specific Plan.

The residential Planning Areas vary in allowable density from 3 du/ac to 18 du/ac. As shown in Table 3.0-2, these PAs propose a mix of conventional single-family detached homes on lots anticipated to range in size from a minimum size of 2,000 square feet for medium-density residential to a minimum average of 10,000 square feet for some low-density residential areas. In addition, multifamily housing is proposed, and clustering of housing is permitted. The average overall gross residential density of the Project is 5.7 dwelling units per acre. Residential neighborhoods of varying densities are located throughout the proposed Project.

Low Density Residential – 0 - 5du/ac

Approximately 539.2 acres of the Project site are proposed for low-density residential (LDR) development comprising approximately 35 percent of the total land area, as depicted in Exhibit 3.0-3. A total of 2,222 dwelling units, developed at an average gross density of 4.1 du/ac, could be constructed within LDR-designated PAs on lots that would range in size from 5,000 to over 10,000 square feet.

Medium Density Residential – 0 – 10 du/ac

Single family detached homes on individual lots developed within medium-density residential (MDR) designated Planning Areas would be constructed on approximately 324.4 acres, or approximately 21 percent of the Specific Plan area, as depicted in Exhibit 3.0-3. A total of 1,960 dwelling units could be constructed within MDR-designated PAs at an average gross density of 6.0 du/ac, on lots that would range in size from 2,000 square feet to 3,400 square feet. The Specific Plan also allows for “cluster development” within MDR PAs (e.g., minimum lot size of 2,000 square feet, held in private or condominium ownership, which may be either attached or detached).

High Density Residential – 11 – 18 du/ac

Approximately 73.8 acres of high-density residential (HDR) land use is proposed within the Specific Plan, comprising approximately 4.8 percent of the total land area, as depicted in Exhibit 3.0-3. The average gross density within HDR-designated PAs would be approximately 6.4 du/ac; this density would allow the construction of as many as 1,205 attached dwelling units. The Specific Plan allows for age-restricted or “Active Adult” development in HDR Planning Areas; refer to the Active Adult Alternative below for a definition of residency restrictions. Because Active Adult residential units tend to be smaller than units designed for families and may require less parking, an Active Adult use developed within HDR-designated Planning Areas could result in construction of 1,460 to 2,042 attached dwelling units, depending upon unit mix, required parking, the number of PAs incorporated into the Active Adult development(s), and the amenities offered. An Active Adult HDR neighborhood could be gated for security and could include private streets or driveways.

Permitted Alternative Uses for Residential Planning Areas

The proposed Project has a 30-year implementation period during which time the needs of existing and potential future residents may change. To permit flexibility, various overlays or alternatives are proposed for certain Planning Areas throughout the Specific Plan area. Alternatives for various types of residential development are described below. It should be noted that while some of these alternatives may permit a higher residential density and/or result in a larger number of dwelling units than initially planned for a specific PA, the total number of dwelling units permitted pursuant to the Specific Plan cannot exceed 5,387 units. Accordingly, an increase in density in one area, achieved through the implementation of any of these alternatives, would be offset by a decrease in residential density, or a re-designation to a different permitted use, in another.

Cluster Housing Alternatives

In addition to standard single family detached homes constructed on individual lots, the Specific Plan would allow development of clustered single family homes in MRD-designated PAs. Cluster housing is generally defined as the grouping of dwelling units together to form relatively compact clusters, allowing allocation of the space between clusters to pedestrian circulation and cooperative recreational use. The Specific Plan provides for several types of cluster patterns on small individual lots in addition to detached and attached condominiums.

Active Adult Alternatives

In furtherance of its objective to provide a wide variety of housing types, the Specific Plan has identified two *age-restricted* or “Active Adult” use alternatives that could be implemented within designated PAs. The term “Active Adult” is a very broad, generic term that covers

many varieties of housing for retirees and seniors that is especially designed or geared for people who no longer work, or restricted to those over a certain age, usually 55 and over. The Specific Plan would allow the development of age restricted Active Adult uses as follows:

- **Active Adult Alternative A** would allow development of an Active Adult community in thirteen of the proposed residential planning areas (i.e., PAs 40-45 & 54-59) located in the northwestern part of the Specific Plan. As shown on Exhibit 3.0-3, *Land Use Plan*, these PAs would take access from the North Loop Collector Street. The Specific Plan would allow the North Loop Collector Street and associated internal roadways to be gated, access-controlled private roadways within Active Adult neighborhoods. Approximately 1,460 dwelling units could be developed within these PAs pursuant to this Alternative.
- **Active Adult Alternative B** would expand the number of PAs designated as Active Adult to eighteen, and would include PAs 40-49 and 53-59, located on the west side of Highland Home Road north of "F" Street. With the addition of these PAs, approximately 2,042 Active Adult units could be developed pursuant to this Alternative.

Planning Area 43B

PA 43B is a 19.1-acre Planning Area within the 21-acre parcel, currently located in unincorporated Riverside County at the northwest corner of the Project area. As previously noted, this parcel is owned by the Highland Springs Country Club Owners Association and presently contains portions of three golf course holes and disturbed vacant land zoned for medium-density residential development. Although the PA is located in the City of Beaumont's Sphere of Influence, the City of Banning included it within its General Plan planning area. The Specific Plan would propose pre-annexation zoning of PA 43B consistent with its proposed future use if and when its annexation to Banning is pursued; however, annexation is not being requested at this time. PA 43B would not be subject to the provisions and standards of the Butterfield Specific Plan unless and until the area is annexed to the City of Banning with the agreement of the property owner(s).

Planning Areas 3, 4, 5, 26, and 27

To provide further flexibility in land use planning of the Project, the Specific Plan allows commercial or mixed use residential and commercial as an alternate use for all portions of residential PAs 3, 4, and 5 (51.4 acres combined), and Park PAs 26 and 27 (0.9 acres combined), which are associated with the subject residential planning areas.

If commercial or mixed use development is proposed in any portions of PAs 3, 4, 5, 26, and 27, approval of a Conditional Use Permit and/or Planned Unit Development application will be required subject to Sections 17.52 and 17.92 of the City of Banning Zoning Ordinance. The City

Community Development Director will have the discretion of determining which of these applications will be required. A Traffic Validation Report (TRV) will be required to verify that the Project's total peak hour vehicle trips based on this alternative commercial use are consistent with the assumptions of the certified Specific Plan Traffic Impact Analysis, dated December 2010.

3.6.2.2 NON-RESIDENTIAL PLANNING AREAS

The Specific Plan's primary objectives include the provision of adequate services and new employment opportunities. In furtherance of those objectives, the Butterfield Project proposes commercial development, schools, a fire station, a golf course, a potential community center, and parks to meet the needs of residents of the Butterfield development and the general community.

Commercial Development

The Butterfield Specific Plan proposes approximately 36.0 acres of general commercial land use, in two Planning Areas, comprising approximately 2.3 percent of the total Specific Plan area, as depicted in Exhibit 3.0-3. PA 17, at the southeast corner of Highland Springs Avenue and "B" Street, is a 13-acre site; PA 18, located on the northeast corner of Wilson Street and Highland Springs Avenue, is 23 acres in size. The proposed commercial sites are anticipated to accommodate retail shops and services that would be available to residents of the proposed Project and surrounding areas. Typical commercial uses permitted by the Specific Plan include conventional retail and offices uses such as food and drug stores, retail stores, community and religious centers, health and fitness centers, art studios and theaters. In PA 18 the Specific Plan would allow retail services and office uses and would also permit elder care and assisted living facilities. To ensure compatibility with existing and proposed land uses, the Specific Plan includes Design Guidelines and Development Standards that would guide development of these sites. In addition, all development within the Specific Plan would be required to comply with the requirements of the Chapter 17.28 of the City Zoning Code and conform to its standards for off-street parking, loading area locations, security, lighting, hours of operation, and constraints on the hours when deliveries can be made.

To provide needed flexibility in land use planning through the implementation phase of the Project, the commercial PAs 17 and 18 also have alternate residential land use designations or "overlays." If not developed for commercial use, PA 17 could be developed as a low-density residential area at up to 4.5 dwelling units per acre. PA 18 could be developed as a medium-density residential area with a density of up to 10 dwelling units per acre. As is the case with Residential Alternatives, development of residential uses on designated commercial sites would require an offsetting reduction in the number of dwelling units in other Planning Areas within the Specific Plan so that the allowable maximum of 5,387 total dwelling units is not exceeded.

As noted above under alternatives in the residential areas, the Specific Plan allows Commercial or mixed use Residential and Commercial as an alternate use for all portions of Residential PAs 3, 4, and 5 (51.4 acres combined), and Park PAs 26 and 27 (0.9 acres combined) that are associated with the subject residential planning areas subject to further review as noted.

School Sites

The Butterfield Specific Plan Project area is served by two school Districts: Banning USD and Beaumont USD. The geographic boundary between the two is located at Highland Home Road and could subsequently be adjusted to reflect the Highland Home Road realignment within the Specific Plan area should the Districts decide to pursue such a course of action. Two approximately 11-acre elementary school sites are provided within the Specific Plan Project area. The first is located in Planning Area 20, is 11.7 acres in size, and would be offered for dedication to the Beaumont Unified School District. The second, located in Planning Area 68, is an 11.3 acre parcel within the Banning USD attendance area. Assuming that the Districts accept these sites, school facilities would be developed pursuant to State and local regulations governing school uses and associated facilities. The Banning Recreation and Park District may enter into joint use agreements with one or both of the Districts to allow the use of playing fields by residents as part of the recreational component of the Project. Each school could have lighted ball fields and security lighting where deemed appropriate.

Each of the school sites have residential overlays permitting medium-density residential development at 10 du/ac in the event that one or both of the Districts chose to not to accept a site.

Commercial Alternative Uses in Selected Residential Planning Areas

Although PAs 3, 4, 5, 26, and 27 are designated for residential and associated development, the Specific Plan allows alternative development of these PAs with commercial land uses. If developed entirely pursuant to this Alternative, 339 residential units would be eliminated or allocated to other PAs and up to 797,365 square feet of additional commercial development would replace them. The additional square footage calculation is based on a 0.35 floor area ratio (FAR). Pursuant to this Alternative, the neighborhood mini parks planned for PAs 26 and 27 would also be eliminated and these areas would be developed with commercial uses as well.

Potential Fire Station Site

The City and County Fire Department has indicated that an additional fire station may be required within the Butterfield development to ensure adequate provision of services and appropriate response times. Accordingly, a 1.6-acre optional fire station site is proposed in the southern portion of PA 60, which is otherwise designated for low-density residential development. This approximate 1.6-acre potential fire station site could also be located in any

other PA within the Project site with the exception of PAs 21 – 34, 36 – 38, and 69, 73 – 74. Refer to Exhibit 3.0-3, *Land Use Plan*, for the approximate proposed location of the potential fire station site.

3.6.2.3 OPEN SPACE AND RECREATION

The Butterfield Specific Plan Open Space/Recreation component includes a potential public golf course, parks, natural and landscaped open space, and a multi-use basin/lake area in the north part of the Project. These uses total approximately 428.8 acres and their locations are depicted in Exhibit 3.0-4, *Recreation and Open Space Plan*.

Parks

The Project proposes twenty-four park PAs, ranging in size from 0.4 acres to 16.4 acres. These parks are variously classified as neighborhood mini-parks, neighborhood recreation parks, and community parks, and are described in further detail below. All facilities and some trails would have 24-hour security lighting. Active recreation areas, including the optional community center, may have night lighting for activities and events up to 10:00 P.M., pursuant to the City Municipal Code.

Neighborhood Mini Parks: PAs 22-34, 62, 64-67, and 72 are proposed to be neighborhood mini-park sites intended to serve neighborhoods within a 0.5-mile radius of the park's location. These parks are anticipated to include play equipment, sport courts, picnic areas, and basic related amenities. These sites would also be equipped with nighttime security lighting.

Neighborhood Recreation Parks: PAs 21 and 63 are proposed as neighborhood recreation parks, are approximately 3-4 acres in size, and designed to serve the active and passive recreation needs of residents. Proposed recreational facilities may include sport courts, swimming pools, and play areas together with related amenities. Other proposed amenities may include restrooms and off-street parking. The proposed park facilities would also be equipped with night lighting to accommodate nighttime activities and to enhance site security and public safety. Other facilities, including a visitor information center and gift shop, would be allowed with a Conditional Use Permit (CUP). The Specific Plan allows for the adjustment of the proposed location of neighborhood mini and recreation parks within the Plan area.

Community Parks: PAs 36, 37, and 38 are proposed as larger community parks and would be located within the 430-foot-wide Southern California Edison (SCE) easement. These parks are intended to be used for ball fields and sports courts and may include golf-oriented public use and related facilities, playgrounds, trails, restrooms, and off-street parking. These sites would also be equipped with night lighting to accommodate nighttime activities and to ensure site security and public safety. Other uses, including locally adaptive community farming, would be allowed with a CUP.

Optional Community Center: The Butterfield Specific Plan would allow the development of a publicly owned Community Center in most Planning Areas. To accommodate planned functions and parking, the Community Center site would be approximately 1 to 2 acres in size and would be allowed with approval of a Conditional Use Permit (CUP) in all residential and neighborhood park PAs and as a permitted use in neighborhood recreation parks (i.e., PAs 21 and 63) and in the golf course/drainage open spaces, (i.e., PAs 35 and 39). A Community Center would not be allowed in PAs 36 – 38 (i.e., SCE easement/community parks), or in PAs 19, 71, 69, 73, 74, and 75 (i.e., open space/easements/drainage). A public Community Center would be used for indoor recreational activities and other community uses, which could include an internet café, community theatre, or gymnasium.

If developed, a public Community Center would be owned and operated by the City of Banning and would be available to all residents of the City.

Open Space and Trails

In addition to the golf course and parks, the Butterfield Specific Plan includes additional open space areas such as hillsides with preserved natural vegetation (e.g., PA 73), landscaped SCE easement area such as PA 74, fuel modification setback areas including PAs 69, 73 and 75, and passive use drainage areas such as PA 19. In addition to these improvements, the Specific Plan proposes the construction and/or extension of recreational trails within and adjacent to PAs 19, 50, 51, 52, 60, 61, 65, 68, 73, 75 and within the natural open space area located on the northeastern portion of the Project site. These trails would provide linkages between the residential neighborhoods and the natural open space areas within and adjacent to the Project; refer to the Exhibit 3.4, *Backbone Pedestrian Circulation Plan*, in the Butterfield Specific Plan for specific locations of trailheads. Open space areas may also include fuel modification zones, trails, and public utilities, such as power lines, water reservoirs, and associated access roads.

In addition to the above identified open space areas, a 30.4-acre multi-use basin is proposed in PA 71, where Smith Creek enters the site. This basin would be designed to detain flows from Smith Creek and to provide water storage for irrigation and other needs. The area could potentially function as a recreational amenity for viewing, hiking, fishing and/ or picnicking. This multi-use basin is described in greater detail in Section 3.6.2.5, *Infrastructure*.

Golf Course

The Project proposes a potential public 18-hole, 254-acre golf course and clubhouse located in PAs 35 and 39. The golf course would feature landscaped areas that would be woven throughout the Project and would include a mix of landscape themes and materials. Smith Creek would traverse the golf course and would be incorporated into its design. In addition to accommodating Smith Creek area drainage, flood control, and landscaped Project amenities, the

golf course would include mitigation areas for sensitive plant species and would incorporate a potential fault hazard setback located in the northern portions of the golf course area.

The Specific Plan assumes that the golf course would be privately-owned and would be open to the public seven days a week. For purposes of analysis, operating hours are assumed to be from dawn until dusk and the EIR further assumes that there is potential for nighttime driving range hours. The golf course clubhouse area is planned to include a dining facility, full-service restaurants that could remain open until 11:00 pm, as well as banquet facilities that would also be used during the evening hours. Other allowable uses within PAs 35 and 39 include a community center, additional parking, grounds maintenance facilities, restroom facilities, sports courts and fields, commercial recreation facilities, administrative offices, ancillary general retail or gift shops, and plant nurseries and agriculture. Uses allowed with a CUP include a visitor information center, theater, swimming pool, and/or sports club.

While the Butterfield Specific Plan proposes a golf course other types of open space and recreational uses are also permitted as alternatives in the event the golf course is not developed due to market conditions or other considerations. These alternative uses include various combinations of parks, trails, native habitat, drainage facilities, water quality improvements, groundwater recharge areas, and wetland mitigation areas. The potential impacts of a “no golf course” Alternative are discussed in greater detail in the “Alternatives” section of this document.

Fuel Modification Zones and Hazard Setback Areas

As previously noted, the Butterfield Land Use Plan includes open space PAs along the northern and eastern edges of the Project site. These open spaces include areas where permanent fuel modification zones would be located. Fuel modification zones are areas adjacent to wildlands where potentially combustible vegetation is altered and/or thinned within 100 to 150 feet from structures and are required by statute to provide fire protection and a transition area between developed and wildland areas. Since the Project will be developed incrementally over time, and existing grasslands will continue to exist after mass grading due to reseeding for erosion control, temporary fuel modification areas may be required by the Fire Department as development progresses through the site. Fuel modification zones may be irrigated for all or part of their depth and would be vegetated with fire-resistant non-invasive plant materials; refer to Section 4.8, *Hazards and Hazardous Materials* for a full discussion of wildland urban interface and wildfire-related hazards.

As noted, the Project site is traversed by two strands of the Banning fault and by lesser lineaments that have active seismic potential. The Banning fault zone is located along the southern edge of PA 59 and along the northern edge of PAs 60 and 61. Pursuant to State law and the requirements of the City, structures are set back a minimum of 50 feet from any active or potentially active fault zone.

3.6.2.4 PROJECT CIRCULATION

The Butterfield Specific Plan includes a planned backbone circulation system that would extend through the Project site and is designed to provide efficient internal circulation and appropriate linkages to the City's existing external circulation system; refer to Exhibit 3.0-5, *Vehicular Circulation Plan*, which illustrates the proposed backbone system. The proposed circulation system would provide direct access to individual residential areas as well as to parks, schools, the golf course, and commercial areas within the Butterfield Specific Plan area. The Project proposes six Project entries that would provide access to the Project's interior North Loop Collector Street and South Loop Collector Street from Highland Springs Avenue, Wilson Street, and Highland Home Road.

Highland Springs Avenue

Highland Springs Avenue is identified as an Arterial Highway in the City's General Plan. The thoroughfare runs north and south along the west side of the proposed Project site, and provides regional access to I-10 Freeway for developments in Banning, Beaumont and unincorporated Riverside County. Implementation of the Butterfield Specific Plan would include half width improvement to the east side of Highland Springs Avenue along the Project's street frontage. These improvements would accommodate the street's ultimate 102-foot right-of-way, would include construction of a raised median, four travel lanes (i.e., two in each direction), an emergency/bike lane on both sides of the street, and parkway/sidewalk improvements, including landscaping. Three primary intersections, providing east/west connections from the Project interior, are proposed at "F" Street, "B" Street, and "A" Street, as illustrated in Exhibit 3.0-5. The Traffic Impact Analysis, prepared for the Butterfield Project by LSA and discussed in detail in Section 4.13, *Traffic and Transportation*, of this document, includes recommendations for various off-site improvements at the Highland Springs Avenue/I-10 interchange and other Highland Springs Avenue locations.

Highland Home Road

Highland Home Road between the proposed "F" Street and Wilson Street is identified as a Major/Arterial Highway in the City's General Plan. Highland Home Road traverses north to south along the east side of the Project to its current terminus. With implementation of the Project Highland Home Road would be widened to its full width, extended into the Project area and would be realigned within it. Proposed improvements to Highland Home Road include:

- **From "F" Street to Wilson Street**, the Specific Plan proposes half-width improvements to accommodate an ultimate 104-foot to 128-foot right-of-way, including a 16-foot or potentially greater raised median; four travel lanes (i.e. two on each side of the median), and a 6-foot emergency or bike lane on each side of the street.

- **From just south of “D” Street to Wilson Street**, the existing Highland Home Road may be developed as a frontage road providing access to existing residences located on the east side of the street. The new frontage road would be separated from Highland Home Road by a 4-foot parkway median, which would be planted with tall shrubs to provide a protective visual barrier and to attenuate noise.
- **From “F” Street to Brookside Avenue**, the General Plan identifies Highland Home Road as a Major Highway. As it is extended into the Project area, the Highland Home Road alignment would turn to the west and connect with Brookside Avenue, an east/west street that currently terminates at Highland Springs Avenue on the west side of the Project site. Highland Home Road would be developed with a 100-foot right-of-way that would be improved with a median area, that would be either raised or painted, four travel lanes (i.e., two through lanes in both directions), and emergency/bike lanes on each side of the street.

Wilson Street

Wilson Street is identified in the General Plan as a Major Highway as it traverses the City of Banning. Its name changes to 8th Street east of Highland Springs Avenue, in the City of Beaumont. Wilson Street is an east/west thoroughfare that intersects both Highland Springs Avenue and Highland Home Road at the southern boundary of the Project site. Implementation of the Specific Plan would include the following half-width improvements to Wilson Street:

- From Highland Springs Avenue to the vicinity of “C” Street, Wilson Street would be improved to its full 105-foot right-of-way width, allowing for a painted or raised landscaped median and two through lanes and emergency/bike lanes on each side of the median.
- West of Highland Home Road, Wilson Street would be widened and improved to its full 105-foot right of way for the length of the Project boundary, which will allow for a painted or raised landscaped median, two through lanes, and emergency/bike lanes on each side of the median.

Divided Collector Street – Project Interior

Project Entry Streets: “A” Street, “B” Street, “C” Street, “D” Street, “E” Street and “F” Street

The proposed Project circulation system includes six Project Entry Streets that would provide linkage between the Project’s interior North and South Loop Collector Streets and existing Highland Springs Avenue, Wilson Street, and Highland Home Road. These include: “A” Street, “B” Street, “C” Street, “D” Street, “E” Street, and “F” Street. All of the Project entry streets would accommodate two travel lanes in each direction, a 16-foot-wide raised median, 10-foot

emergency/bike lanes on each side of the street, and parkways that would be improved with meandering sidewalks and landscaping.

North and South Loop Collector Streets

The Project proposes North and South Loop Collector Streets and would comprise the backbone internal circulation for the development. Each Loop Collector would have 108-foot of right-of-way that would be improved with a 12-foot painted median, a maximum 16-foot travel lane in each direction, and a 10-foot emergency/bike lane on each side of the street. The parkways on each side of the Loop Streets would vary in width.

Local Streets

The Project's internal circulation system would include local streets that would provide points of access into each Planning Area. These local streets would have a standard 56-foot right-of-way, with one travel lane in each direction, and 5-foot sidewalks on either side of the street. Sidewalks on local streets may be located adjacent to the curbs or may be set back from the curbs behind a landscape parkway. Additionally, a 3-foot public utility easement may be located on both sides of the road right-of-way.

Private Street Options

Portions of the Project's internal circulation system may be designated as private streets with gated access if proposed by Project developers to accommodate active adult communities. Private streets would be maintained by a homeowners association.

Low Speed Vehicle (LSV) Circulation

The Butterfield Specific Plan would allow the use of electric-powered Low Speed Vehicles (LSVs) on all internal Project streets. Section 385.5 of the *California Vehicle Code* (CVC) defines a Low Speed Vehicle (LSV) as a motor vehicle meeting State safety standards that is capable of propelling itself at a minimum speed of 20 miles per hour and a maximum speed of 25 miles per hour. CVC Section 21266(a) allows LSVs to travel in the standard vehicle travel lanes of any street with a posted speed limit of 35 miles per hour or less. Because electric powered LSVs are predominantly sold in California, LSVs are more commonly referred to as Neighborhood Electric Vehicles (NEVs) and the terms are used interchangeably in this analysis.

All interior streets in the Butterfield Specific Plan are expected to have posted speed limits of 35 miles per hour or less and would therefore allow LSV/NEVs. Although the State Vehicle Code allows LSV/NEVs to travel in standard vehicle travel lanes, the Butterfield Specific Plan *Vehicular Circulation Plan* and proposed Roadway Cross Sections provide striped dual LSV/NEV and bike lanes on the right side of all proposed collector streets. LSV/NEVs will have access to

any PA within the Project area, including commercial, residential, park, golf course, or open space recreational areas. The Project's circulation system would be designed to enable LSV/NEV access to any area without requiring transit through or over Highland Home Road, Highland Springs Avenue, or Wilson Street external to the Specific Plan site. Highland Home Road through the Project site may have a posted speed limit of greater than 35 miles per hour; however, it should be possible to allow LSV/NEVs on Highland Home Road in a separate striped lane. This design is reflected on the proposed street cross sections included in the Butterfield Specific Plan. NEVs are allowed to cross streets with posted speed limits of greater than 35 miles per hour.

Non-Vehicular Circulation

The proposed Project accommodates non-vehicular circulation through design elements that include: on-street bicycle lanes, trails, pathways, sidewalks, and combinations of meandering sidewalks and meandering trails. The Specific Plan proposes on-street bicycle lanes along all Project roadways having modified collector classification or higher. Trails are proposed within and adjacent to PAs 50, 68, 51, 52, 65, 60 and 61, and within the natural open space area located in the northeastern portion of the Project site.

3.6.2.5 INFRASTRUCTURE

Implementation of the proposed Butterfield Specific Plan Project requires the development of both on-site and off-site infrastructure including drainage facilities, storm drain, water, sanitary sewer, reclaimed water subsurface pipelines, and dry utilities (e.g., electricity, natural gas, and communications). Much of the necessary on-site infrastructure would be constructed incrementally as the Project develops; however, certain backbone facilities would need to be installed as part of the first phase of the Project's construction.

Utility Substation (Existing)

A 4.2-acre site on the far east side of the Specific Plan area, now occupied by an existing City of Banning electrical substation was originally included as part of the Deutsch Specific Plan Project. The substation site, located in what is now designated PA 70 in the Butterfield Specific Plan, was acquired by the City of Banning and the City's Electric Department constructed the substation, which was placed in service in 2009. A separate CEQA document was prepared and certified by the City for the facility; therefore, its impacts are not addressed in this EIR. Its location is identified in Exhibit 3.0-3, *Land Use Plan*.

Electric Transmission Easement and Transmission Line Relocation and Natural Gas Pipeline Relocation and Replacement

A 115 kilovolt (kV) above ground electric transmission line occupies a SCE easement in PA 73 and the eastern portion of PAs 60, 69, 67, and 52. As part of the proposed Project, approximately 2,700 linear feet of the transmission line would be relocated to the boundary between PAs 60 and 73 and the east side of PA 67 and the easement modified to accommodate the new transmission line alignment; refer to Exhibit 3.0-6A, *Utility Relocation* and Exhibit 3.0-6B, *Utility Relocation*). The relocated transmission line would be re-constructed above ground because the current high voltage size of the line, 115 kV, makes it prohibitive to be placed underground.

An existing 30-inch-diameter high-pressure natural gas transmission line traverses the southern portion of the Project site from east to west. The subsurface line currently enters the east side of the site at "D" Street and exits the west side of the site under proposed "B" Street. The pipeline through the Project site would be replaced by Southern California Gas Company with residential grade pipe, as required by the PUC, concurrent with development Phase I. In addition, the natural gas line easement and pipeline would be realigned under portions of the Proposed South Loop Collector Street and portions of the proposed golf course to ensure that the easement remains within public right of way or within the open space provided by the golf course. Refer to Exhibit 3.0-6C, *High Pressure Gas Line Location*.

Drainage Facilities

As note previously, the majority of the Project site drains to Smith Creek while a small area on the east drains to Pershing Channel. As the Project develops, its drainage system will be incrementally constructed to handle both nuisance and storm flows including those generated on the Project site and those entering the Project site from off-site portions of the Smith Creek and Pershing Channel watersheds. As designed, the backbone drainage system would direct first-flush storm or nuisance flows from developing areas toward water quality features such as detention/water quality basins that would treat the runoff before it enters primary existing drainages. As part of the Project's proposed drainage improvements, Smith Creek would be realigned to work within the golf course and to accommodate the proposed basin and channel features that would be constructed where Smith Creek enters and exits the site and along its length. Drop structures and velocity reducers would be designed into the channel alignment to regulate the volume and velocity of flows within the creek channel to prevent erosion. The proposed drainage system also includes controls for runoff entering Pershing Channel.

The Butterfield site is located within inundation areas associated with the Smith Creek drainage and with surface water sheet flows, as mapped by the Federal Emergency Management Agency (FEMA). As designed, the Project's drainage system would protect the Butterfield site from inundation and would help regulate dispersal of flows throughout the site, allowing

stormwater runoff to move through and exit the site more efficiently and safely than is the case with existing natural conditions.

The Project site also sits above a portion of the Beaumont groundwater basin. In its undeveloped condition, the site allows precipitation to percolate through the underlying soil and rock to recharge the basin. To replicate that function, the proposed drainage system also includes groundwater recharge areas located within the golf course and along the Smith Creek drainage alignment. Several detention basins are proposed to be located along the northern and eastern perimeter of the Project area adjacent to PAs 50, 51, 52, 60 and 61, and adjacent to the foothills. These basins would serve to control and contain debris associated with stormwater runoff reaching the site from off-site areas. Exhibit 3.0-7, *Master Drainage Plan*, illustrates the overall Project drainage concept and shows the location of the PA 71 multi-use North Basin described below. Exhibit 3.0-8, *Proposed Water Quality / Infiltration Areas Map*, shows the locations of debris basins, detention basins, storm drains, infiltration areas, and post-construction Best Management Practices (BMPs).

North Multi-use Basin

A large multi-use basin (hereinafter the “North Basin”) is proposed within PA 71 at the north end of the Specific Plan area where Smith Creek enters the site. This basin would be designed to detain upstream storm flows, reducing the volume of stormwater entering the portion of Smith Creek that traverses the Project site such that the volume of stormwater in the developed condition that exits the site at its south boundary, via the Wilson Street culvert, would be equal to or less than existing flows in the site’s undeveloped condition. The North Basin would include three bays: a desilting basin to remove sediment from upstream flows; a weir to contain any accumulated debris; and a larger detention basin to hold stormwater overflow and provide detention storage during significant storm events. The North Basin would have an overall surface area of approximately 14 acres, an approximate depth of 21 feet, and an ultimate depth of up to 28 feet to contain and control storm flows to a 100-year storm event level. In addition to the anticipated stormwater detention capacity, the North Basin would be designed to provide up to 290 acre-feet of water storage capacity.

The North Basin may also be used to store recycled water and/or raw (i.e., pre-treated) State Water Project (SWP) water that could be imported to the site. From whatever source, the stored water would be used for irrigation and could be considered for groundwater recharge purposes in the future, subject to the appropriate review and approval process. The City has been considering the construction of an off-site water pipeline that would convey SWP water into the North Basin as a separate City project; refer to Section 3.6.3, *Offsite Project-Related Infrastructure*.

Golf Course Drainage System

As noted, Smith Creek would be the primary backbone drainage facility for the Project and would be realigned to facilitate conveyance of storm flows from the North Basin through the golf course to the culvert beneath Wilson Street as illustrated in Exhibit 3.0-7, *Master Drainage Plan*. As part of its function, the creek channel would convey storm water and nuisance flows through biological habitat mitigation areas, water quality treatment facilities, and groundwater recharge areas located along its alignment, as illustrated in Exhibit 3.0-8, *Proposed Water Quality / Infiltration Areas Map*.

The Project proposes a total of 13 acres of recharge basins located throughout the proposed golf course. The golf course is designed so that, during significant storm events, the channelized storm flows can spill over the creek banks and spread onto the golf course fairways, to be detained there. In addition, as needed, limited detention facilities may be constructed along Smith Creek to ensure additional on-site control of stormwater.

Other Components of the On-Site Drainage System

Drainage from development areas within the proposed Project will flow along street gutters into curbside catch basins and thence into subsurface storm drains that would convey stormwater and nuisance flows to either the Smith Creek drainage or to Pershing Channel. Before nuisance flows or first flush stormwater runoff enters either Smith Creek or Pershing Channel, these flows would pass through water quality treatment facilities that would consist of vegetated detention basins or vegetated flow-through swales located within the golf course or other open space areas. The proposed Smith Creek channel would be lined in areas with turf reinforcing mat (TRM), which would be covered in soil and vegetated, resulting in a natural-appearing, vegetated channel. Where the velocities are significant, drop structures will be utilized to dissipate energy and reduce velocities, protecting the channel from erosion.

To allow for optimal drainage and recharge, the Project would construct off-site drainage improvements, involving off-site grading and construction of debris/desilting basins immediately north of the proposed alignment of the extension of Brookside Avenue, as part of the realignment of the Smith Creek channel. Nuisance and storm flows exiting the golf course in Smith Creek would be conveyed under the South Loop Collector Street into the southern Smith Creek channel located in PA 19. All drainage from the Smith Creek channel would be conveyed off-site to the south through an existing culvert under Wilson Street. To efficiently handle Smith Creek's peak flows, the existing Wilson Street culvert may need to be enlarged. As that work could be completed as part of the Butterfield Project, analysis of the culvert expansion is included in this EIR. Alternatively, the City of Banning could elect to reconstruct the Wilson Street culvert as a separate City project and would, in that case, complete a separate environmental analysis; refer to Exhibit 3.0-9, *Offsite Infrastructure*.

The proposed Butterfield drainage facilities would be constructed in place of the system described in the Riverside County Drainage Master Plan but would provide the same level of protection and perform the same functions as the County-planned facilities. It is anticipated that the completed drainage system would reduce the Project's peak flows in the fully developed condition to a level below the volumes anticipated by the County Master Plan.

On-Site Water Distribution

Groundwater basins within the San Geronio Pass area serve as the primary water source for the City. The Banning Water and Wastewater Department serves the proposed Project site and would provide potable water to Project residents. The City owns and operates wells, storage tanks and reservoirs, and water distribution lines that pump, treat, and deliver potable water to residents within its service area. To meet the potable water needs of Project residents three to four above-ground steel water storage tanks for potable water (in context of on-site water storage, "tank" and "reservoir" are used interchangeably), having a total storage capacity of approximately 3.5 million gallons (mg), would be constructed to serve homes in the Project's development that would become part of the City's existing lower Foothill West Pressure Zone, on-site Pressure Zone I, and on-site Pressure Zone II. The proposed Project approximate 1.6 mg Foothill West storage tank would be located on the east side of PA 50 at an elevation of approximately 2,790 feet amsl. Alternatively, this storage tank could be buried under the playing fields of the PA 68 school site. Both the Project's approximate 1.4 mg Zone I and 0.5 mg Zone II storage tanks would be located in the east portion of PA 73, at minimum pad elevation of approximately 3,038 feet amsl for Zone I and approximately 3,205 feet amsl for Zone II. The Specific Plan would allow the construction of either a single tank or two side-by-side storage tanks to serve Pressure Zone I.

In addition to the potable water storage reservoirs, three potential pump stations and on-site water distribution pipelines would be constructed. The Project's water distribution and storage system would connect to the City's existing system at Highland Home Road and Wilson Street as well as at "C" Street and Wilson Street. In addition, the Specific Plan allows for three potential interconnects with the Beaumont-Cherry Valley Water District through potential additional pump stations located along Highland Springs Avenue.

Off-site potable water pipeline would be installed from within adjacent streets to connect the Project to the City's existing water distribution system.

Recycled Water Distribution

The Butterfield Project proposed to reduce its consumption of potable water through the use of recycled water for irrigation of the golf course, landscaped medians/parkways, parks, landscaped open spaces and hillside fuel modification zones to the greatest extent feasible. To accomplish this goal, the Project would either receive recycled water treated to tertiary

standards from the City's expanded Wastewater Treatment Plant (WWTP) or would construct an on-site "satellite" WWTP, which would be owned and operated by the City of Banning; refer to description of the Project's Wastewater (Sewer) System for additional detail. If the on-site WWTP is not constructed, off-site recycled water pipelines would be constructed in existing City right-of-ways to the City's main WWTP so that recycled water produced at that facility could be conveyed to the Project site for use; refer to Section 3.6.3, *Off-Site Project-Related Infrastructure*.

Groundwater Recharge

To help offset the Project's anticipated impact on City water supplies and groundwater basins, a ground water recharge system is proposed to be incorporated into the Butterfield Project. Planned recharge would help replenish groundwater supplies in the Beaumont groundwater basin, from which the City draws a portion of its water supply. The Beaumont Basin is an adjudicated ground water basin and the City of Beaumont is responsible for protecting the water quality within the basin. Accordingly, any recharge activity associated with the Project would require coordination between the City of Banning, the City of Beaumont, the State Water Quality Control Board, and the Beaumont Basin Watermaster.

The proposed groundwater recharge system may utilize a portion of the City's State Water Project (SWP) allocation, delivered by the San Geronio Pass Water Agency, in addition to potential surplus recycled water, conveyed to the North Basin from either the on-site WWTP or the City WWTP. If recycled water is used, it would have to be blended with another water source, such as SWP water, to achieve an acceptable level of water quality for groundwater recharge. Uses of recycled water for groundwater recharge in the Butterfield Specific Plan area would require the approval and permits from the Regional Water Quality Control Board, Santa Ana Region, because it overlies the Beaumont (groundwater basin) Management Zone, as well as complying with California Department of Public Health Title 22 regulations. The recharge system would be facilitated in part by extending a SWP pipeline from the Noble Creek Spreading Grounds to the proposed North Basin through the Brookside Avenue right-of-way; refer to Section 3.6.3, *Off-Site Project-Related Infrastructure*. As a potential component of the Project's water system, impacts associated with the construction of the off-site SWP pipeline are addressed in this EIR, although as previously noted, the City of Banning may construct the pipeline as a separate City project. SWP water stored in the North Basin would be conveyed through an on-site distribution system to groundwater recharge areas within the Project, located primarily within the Smith Creek drainage.

Wastewater (Sewer) System

The Project's projected total average wastewater flow would increase incrementally through the 30-year implementation phase of the Project and could be reduced during that period by changes in development patterns and/or advances in water-conserving technology. The

Project's sewer system would convey wastewater through on-site sewer pipeline by gravity flow towards the Project's southeastern corner, where off-site sewer main would convey wastewater to the City's WWTP. If an on-site satellite WWTP is constructed, the Project's wastewater would be conveyed to the plant for treatment prior to discharge and distribution, while surplus treated water and residual biosolids would be discharged into the City's sewer main and transported to its main WWTP for final treatment and disposal; refer to *Off-Site Facilities* for a more detailed description.

On-Site Satellite Wastewater Treatment Plant

The City is presently pursuing expansion of its main WWTP to provide capacity for the treatment of waste water to tertiary standards; however, to ensure the availability of recycled water to the Project, the Butterfield Specific Plan proposes the construction of an optional or alternative on-site satellite WWTP, which would be located on a approximately 3-acre site at south end of PA 11. If constructed, the satellite WWTP would receive wastewater from the Project and potential off-site locations, would treat the wastewater to tertiary standards, and would pump recycled water through an on-site recycled water distribution system to the golf course irrigation lake located north of PA 38 or to the North Basin in PA 71, where it would be stored for irrigation or for groundwater recharge use. Recycled water would also be stored in an above-ground one million gallon steel storage tank located on the satellite WWTP site.

The satellite WWTP treatment process would be confined to a fully enclosed building. All buildings on the WWTP site would be constructed of decorative masonry with residential roof treatments. The site would be enclosed by a minimum 6-foot high decorative masonry wall and landscaping to provide visual screening. All operations and maintenance vehicle parking would be located inside the walled area.

The plant would operate on a 24-hour basis, with approximately 16 hours of operational staff time per week. The on-site WWTP would use a membrane bioreactor (MBR) process to treat up to approximately 1.5 to 2.0 million gallons per day (mgd) of wastewater. The biosolids removed during the treatment process, together with a remaining percentage of unused partially treated water, would be pumped into a new off-site sewer line to be built as part of the Project in Wilson Street and Highland Home Road or Omar Street that would convey this discharge to the existing City sewer trunk line at Ramsey and Omar Streets, where it would then be conveyed to the City's existing WWTP for further treatment and disposal.

3.6.2.6 GRADING

Mass grading of the Specific Plan area would be executed in four phases over the 30-year Project implementation period. All mass grading would be designed with an emphasis on establishing initial building envelopes to site the golf course, backbone roadways, drainage features and basins, residential planning areas, park areas, school sites, commercial sites, and

water reservoirs and storage tanks. Site grading would not be expected to significantly raise or lower the overall elevation of the site as compared to its undeveloped condition. Rough and fine grading associated with the development of individual subdivisions within the Specific Plan or for specific special purpose sites, would occur subsequent to mass grading.

The estimated earthwork quantities generated by mass grading the entire Butterfield site would be approximately 6.2 million cubic yards (cy) of cut and approximately 6.2 million cy of fill. Exhibit 3.0-10, *Conceptual Mass Grading Plan* shows the relationship between cut and fill areas and the boundaries of the various phases of mass grading.

Proposed mass grading would include mass excavation, over-excavation, and remedial grading (i.e., alluvium and colluvium removal and re-compaction). An additional 3.14 million cy of additional remedial grading may be required as the Project develops. Mass grading is anticipated to balance on-site (i.e., equal cut and fill), although there may be nominal import of specialty materials (i.e., golf course sand, etc.) and nominal export of unsuitable materials such as rocks and aggregate, typical of large land development projects. Clay or other materials could be imported for use in the construction of the North Basin. As noted in Section 3.7, *Project Phasing*, and as discussed throughout this EIR, initial mass grading would be focused on the development of the Project's backbone drainage and recharge facilities associated with the North Basin, golf course open space, the re-alignment of Smith Creek and construction of the associated recharge features, and development of PAs located in the south half of the Project area.

The Project's grading plan would be designed to reflect sensitivity to natural on-site landforms, existing site topography and the grading concepts proposed for neighboring properties. In addition, the mass grading plans, and all subsequent rough and fine grading plans, would incorporate Best Management Practices (BMPs) for erosion control and water quality protection.

3.6.3 OFF-SITE PROJECT-RELATED INFRASTRUCTURE

In addition to the facilities and improvements proposed on and immediately adjacent to the Project site, a number of off-site infrastructure improvements would be needed to implement the Butterfield Specific Plan. These include the following:

Off-Site Circulation System Improvements

Implementation of the Project requires a construction of a number of off-site street improvements, including previously described half-width improvements of Highland Springs Avenue, Highland Home Road, and Wilson Street adjacent to the Project boundary. Off-site street and circulation system improvements are discussed at length in Section 4.13, *Traffic and Circulation*. As will be noted in Section 4.13, construction of some of the recommended off-site street and traffic control improvements would require acquisition of additional right-of-way,

which could impact existing sidewalks, parking and/or landscaping and, in limited cases, could also affect existing structures. Section 4.13 also identifies various *ultimate* street improvements needed to accommodate the build-out of the City's General Plan, which, in certain cases, would require acquisition of additional right-of-way. The contribution of the Project to cumulative circulation system impacts is described and addressed where appropriate in Section 4.13 of the EIR.

Off-Site Water Supply and Distribution System Improvements

To accommodate potential increases in historical SWP water for groundwater recharge purposes on the Project site and within Banning City Boundaries, the Project includes proposed groundwater recharge basins on site. To utilize these proposed on site recharge basins, a connection between the Project North Basin and the current SWP pipeline terminus, and San Gorgonio Pass Water Agency (SGPWA) spreading ground facilities at Little San Gorgonio Creek, northwest of the Project site, would need to be constructed. This option would only be pursued if determined preferable by the City of Banning, instead of or in addition to using the existing Beaumont Cherry Valley Water District (BCVWD) Noble Creek spreading facilities for SWP ground water recharge, as the City is currently doing under agreement with BCVWD. To accomplish the connection a 24-inch or 36-inch diameter transmission pipeline would need to be constructed to convey SWP water, and a pump station would be constructed at the connection to facilitate conveyance.

If constructed, the SWP pipeline extension would follow one of three potential alignments, illustrated in Exhibit 3.0-11, *State Water Project Pipeline Extension*: (1) **SWP Alternative A** would carry water south beneath the Noble Street right-of-way and east beneath the Brookside Avenue right-of-way to the Project site; (2) **SWP Alternative B** would convey water south beneath Noble Street, east beneath Dutton Street, south beneath Cherry Avenue and east beneath Brookside Avenue, all within the public street right-of-way, to the Project site; and (3) **SWP Alternative C** would convey water south beneath Noble Street, east beneath Dutton Street, south beneath Bellflower Avenue and east beneath Brookside Avenue to the Project site, all within the public street right-of-ways.

Off-Site Recycled Water Distribution and Conveyance Improvements

While the City of Banning has not constructed a pipeline to deliver recycled water to irrigation customers, new developments are required to construct dry lines together with potable water lines so that recycled water can be used when it becomes available. As previously noted, if an on-site satellite WWTP is not constructed, the Project would construct recycled water distribution pipelines within existing public right-of-way from the City's WWTP to the Project site to facilitate delivery; refer to Exhibit 3.0-12, *Off-Site Recycled Water*. The City of Banning WWTP currently has the capacity to treat 3.6 mgd of wastewater to secondary standards;

however, an expansion of the facility to include capacity to treat wastewater to tertiary standards is in progress.

The recycled water conveyance pipeline would extend off-site from the Highland Home Road/Wilson Street intersection and proceed eastward along Wilson Street, south on Sunset Avenue, eastward on Lincoln Street, south on Hathaway Street, and eastward on Charles Street to the City's WWTP. Pumps would be needed at points along the off-site line to facilitate conveyance of recycled water from the City's WWTP to the Project site.

If this recycled water supply alternative is pursued, the Project would pay its fair share contribution towards construction of the off-site pipeline or would construct the entire off-site improvement, subject to a Reimbursement Agreement with the City or in exchange for Project fee credits. Use of this source of recycled water would require completion of the planned improvement of the City's WWTP to both expand treatment capacity and to upgrade the plant to provide tertiary treatment of wastewater. As of the date of this writing, these plant improvements have been included as part of the City's Capital Improvement Program (CIP) and a mitigated negative declaration has been completed for the upgrade; however, construction has not started.

If the proposed on-site satellite WWTP option is implemented, the Specific Plan provides for optional diversion of existing wastewater flows from existing homes south of the Project and north of the I-10 freeway and from a limited area to the east of the Project site to the on-site satellite WWTP. This diversion would provide the wastewater flows necessary to commence the operation of the satellite plant. Implementation of this option would require construction of a sewer lift station, which could be located at the corner of Ramsey Street and Omar Street, as well as installation of approximately 3,900 linear feet of new off-site force sewer mains within the Omar Street and Wilson Street right of ways, or within the Ramsey Street and Highland Home Road right-of-ways, to transport diverted wastewater flows to the satellite plant; refer to Exhibit 3.0-12, *Off-Site Infrastructure*.

Off-Site Sewer

As noted above, whether as an alternative to an on-site satellite WWTP or as a means of transporting residual wastewater with biosolids from the on-site WWTP to the City's WWTP for further treatment and disposal, the Project would be served by the City's Main WWTP. An infrastructure connection to the City's Main WWTP would require construction of approximately 22,400 linear feet of off-site sewer main within portions of the Wilson Street, Omar Street, Ramsey Street, Sunset Avenue, Lincoln Street and San Gorgonio Avenue right of ways as illustrated in Exhibit 3.0-13, *Off-Site Sewer Plan*. A new gravity sewer line conveying residual wastewater and biosolids from the Project on-site satellite WWTP to the existing City sewer trunk line at Ramsey and Omar Streets would follow one of the same alignment

alternatives as the proposed force sewer diversion main described above and would bypass the proposed lift station connecting to the existing sewer downstream of it.

From Sunset Avenue, at least two different alternative alignments connecting the Project directly to the City's Main WWTP via an existing wastewater trunk line could be implemented. Pursuant to the City's November 2006 Sewer System Study, one alternative would require the extension of a wastewater line down Sunset Avenue to the vicinity of Bobcat Road, where the Sunset Crossroads (previously known as Five Bridges) and BDS developments would complete the line extension in Bobcat Road eastward to existing pipelines at South San Geronio Avenue. For this alignment to be feasible, the aforementioned developments would need to be implemented prior to or concurrent with the proposed Project. If the Project is developed first, the Project could be required to complete the entire connection along this alignment subject to a reimbursement agreement.

Alternatively, if the Sunset Crossroads and BDS projects do not proceed in advance of, or concurrently with, the proposed Project, the connection to the wastewater treatment plant could proceed eastward on Lincoln Street and southward on South San Geronio Avenue. This alternative alignment would provide a fairly direct and efficient route to serve the Butterfield Specific Plan area, but the resulting pipeline extension would not serve the Sunset Crossroads and BDS developments.

Off-Site Drainage

As previously noted, as part of the re-alignment of Smith Creek the Project proposes potential off-site drainage improvements that would require off-site grading and construction of debris/desilting basins immediately north of the proposed alignment of the extension of Brookside Avenue. In addition, the City could determine that the existing Wilson Street box culvert lacks sufficient capacity to efficiently handle Smith Creek flows at the existing volume and could require its expansion as part of the Butterfield Project. For this reason, the EIR includes an analysis of potential impacts associated with the work. Alternatively, the City could choose to pursue the culvert expansion as a separate City project, in which case the City would complete a separate environmental analysis. Expansion of the Wilson Street/Smith Creek culvert and associated outlet structure could also require modification of the Smith Creek channel south of the culvert for a distance of approximately 200 feet, with associated impacts to vegetation and functions; refer to Exhibit 3.0-9, *Off-Site Infrastructure*.

3.7 PROJECT PHASING

The Butterfield Specific Plan would be developed in five primary phases over an estimated 30 year implementation period, assuming an average construction of 180 dwelling units per year, as shown on Exhibit 3.0-14, *Conceptual Phasing Plan*. Associated infrastructure would be constructed incrementally to match the needs of development as it occurs. As previously noted, mass grading of the Project site would take place in approximately four phases, combining development Phase 1 and 2 in the first mass grading phase. The development sequence as outlined below is subject to change over time in response to various factors including the cyclical nature of the housing market and other variations in demand. Development of individual Project phases may overlap or occur concurrently or there may be multi-year periods during which no development takes place. Accordingly, the sequential phasing presented below should be considered conceptual rather than definitive for purposes of this Project Description and subsequent environmental analysis. As each individual phase of the Project is submitted with its engineering design, an Infrastructure Phasing Plan would be submitted concurrently. The Applicant may implement the Project in a different sequence of phases, and/or smaller phases. Such plans would be subject to review and approval by the City Engineer to ensure provision of adequate infrastructure as the Project builds out.

Project Phase I

Project Phase I would include mass-grading of the entire golf course open space area (PAs 35 and 39) and those Planning Areas located in the southwestern corner of the Specific Plan, including PAs 1A, 1B, 1C, 2 through 8, 17 through 19, 22 through 27, 35, 38, 39, and 71. The North Basin, located in PA 71, would be constructed and the Smith Creek watercourse would be realigned within the proposed golf course area. Drainage improvements within PA 19 would be constructed to safely convey accumulated upstream and Project-generated stormwater runoff and nuisance flows to the existing Wilson Avenue/Smith Creek culvert. Project Phase I would also include the installation of infrastructure needed to support Phase I development, including on-site and off-site water, recycled water, storm drain, and sewer pipelines, and dry utility lines.

Project entry roadways extending from the South Loop Collector Street to the west and south would be constructed and the segment of "F" Street adjacent to the golf course, as well as the Phase 1-adjacent frontage of Highland Springs Avenue south of "F" Street, and Wilson Street would be improved.

In order to achieve balanced earthwork quantities and avoid export or import, and to ensure the Project drainage functions as intended, the initial mass grading, referred to as "Phase IA", would involve approximately 825 acres, in addition to the grading required to construct the North Basin and Smith Creek drainage. The golf course could be fully developed in the course of this initial phase as well. Mass grading and construction of backbone infrastructure would

be followed by construction of the residential units and other non-residential components of the Project, and the related off-site improvements required to support each Project phase.

Project Phase 2

Project Phase 2 would consist of the development of the Planning Areas located in the southeastern corner of the Specific Plan including PAs 9 through 16, 20, 21, 28 through 33, 36 and 37. The eastern half of the South Loop Collector Street would be completed incrementally with Project Phase 2. The Project entry streets extending northward and eastward from the South Loop Street would be constructed and the remaining extent of F Street from the golf course edge to Highland Home Road, together with the Phase 2-adjacent segment of Highland Home Road south of F Street would be fully improved.

Project Phase 3

Project Phase 3 would include the remaining Planning Areas between Brookside Ave/Highland Home Road and F Street located in the northwestern corner of the Specific Plan including PAs 34, 40 through 42, 43, 44 through 49, 53 through 59, 62 through 66, and 72.

The entirety of the North Loop Collector Street would be improved, although this street could be designed as a private street with an entry gate at each end if an Active Adult Alternative is built. The Project Phase 3-adjacent segments of Highland Springs Avenue north of F Street and of Brookside Avenue/Highland Home Road north of F Street and east of Highland Springs Avenue would also be fully improved.

Project Phase 4

Project Phase 4, would include PAs 50, 51, 52, 67 and 68 located east of Highland Home Road.

Project Phase 5

Project Phase 5 would include PAs 60, and 61 located north of Brookside Avenue within the northernmost extent of the Specific Plan.

3.8 PROJECT DESIGN FEATURES

The following Project Design Features have been incorporated into the Project and are either incorporated into the Butterfield Specific Plan or Project's Development Agreement, or has been otherwise stipulated to by the Applicant. These features are considered in each impact section (i.e., Sections 4.1 through 4.14 of the EIR) and either avoid, reduce, offset, or otherwise minimize identified potential adverse impacts of the Project or serve as "betterments" providing significant benefit to the community and/or to the physical environment. The Project Design

Features would be identified in the Project's Conditions of Approval and/or the required Mitigation Monitoring and Reporting Program to ensure implementation as assumed in this EIR.

Aesthetics/Light and Glare

- The Project has been redesigned from the currently approved Deutsch Specific Plan to retain the northern steeper slopes in natural open space. In addition, in response to initial public scoping and discussions with adjacent residents, the Applicant further designed the Land Use Plan to create higher minimum average residential lot sizes in those portions of the Project (PAs 50, 51, 52, 60 and 61) along the east and north side of Highland Home Road.
- Mass graded areas will be re-vegetated at the completion of the mass grading process, pursuant to the City's *Municipal Code* and the Specific Plan. The vegetation will restore the non-native grassland that currently covers the Project site in those areas that are not immediately developed. Cattle grazing will continue on the site in various areas as the Project develops, allowing the site to retain its rural feel well into the development process.
- Title 17 of the City's *Municipal Code (Zoning Code)* includes development and landscape standards that deal generally with contour grading, preservation of natural open space and scenic vistas, lighting, setbacks, walls, fences and hedges, under-grounding of utilities, etc. Landscape design guidelines provide general direction but are not site specific or exhaustive. The Butterfield Specific Plan contains grading standards and landscape guidelines that both incorporate and exceed the City's Code design standards by providing detailed plans and standards for landscape plant palettes, architectural guidelines (including colors and materials), streetscape enhancements, park treatments, perimeter and interior fencing, etc. These guidelines will provide for a well designed, visually compatible development with enhanced streetscapes and landscaped medians, numerous parks, well designed slope landscape and edge treatments, enhanced perimeter walls, and other features that will significantly enhance the overall appearance of the Project.
- Common area landscape, including enhanced streetscape, parks, and fuel modification zones will be maintained by an HOA or by a Landscape and Lighting Maintenance District (LLMD) that could be formed as part of the Project financing to ensure a uniform level and high standard of maintenance to maintain the long-term appearance of the community.
- The Project includes realignment, reconstruction, and re-vegetation of Smith Creek to restore its natural appearance, as well as provision of extensive greenbelt and

landscaped groundwater recharge areas within the golf course open space area, creating a positive aesthetic improvement.

- The above ground water storage reservoirs will be finished with an earth-toned, matte finish intended to allow the reservoirs to blend into the surrounding hillside areas. The reservoir areas will be further screened by the installation of perimeter landscaping.
- The optional wastewater treatment facilities would be located at the intersection of Highland Home Road and Wilson Street; refer to Exhibit 3.0-3, *Land Use Plan*. All treatment processes would be contained within an enclosed structure that incorporates residential design features including roofing materials, surrounded by a decorative masonry wall and landscaping to screen the facility. The 1-million gallon storage reservoir would be a maximum of 26 in height, similar to the height of a residential structure and would have a matte, earth-tone exterior finish and landscape screening to allow the reservoir to blend into the surrounding neighborhood. The treatment plant would observe a building setback of 20 feet for all property lines
- The Project grading plan reflects the requirements of MC Section 17.08.240(P) by incorporating contour grading in hillside areas designed to blend the Project's manufactured slopes with existing natural terrain as required by Specific Plan Section 3.3.2, *Grading Plan Development Standards*.
- The Project's golf course open space will provide a view corridor to preserve vistas of the San Bernardino Mountain ridgelines and foothills to the north and east and vistas of the San Jacinto Mountains to the south. Open space and parks sited throughout the Project will provide scenic viewpoints.
- The Project's design and development guidelines include specific requirements and restrictions regarding site lighting including:
 - Architectural lighting and landscape accents shall be aesthetically pleasing and non-obtrusive.
 - Shielded lights shall be utilized throughout the community to reduce light glare in compliance with the City's Municipal Code requirements.
 - All lighting shall be designed and located to reduce power consumption to its lowest practical level, direct light rays toward the unit and be compatible with the lighting on adjacent units.
 - Streetlights shall conform to the overall project theme and City standards. On local streets, streetlights shall be located only at street intersections, knuckles, and cul-de-sacs and would not be located at mid-block to reduce nighttime light and glare impacts.

- All exterior lighting for identification, pools, water features, and landscaping
- Shall be subdued and indirect to prevent spillover onto adjacent lots and streets as required by City ordinance.
- Exposed bulbs, spotlights, and reflectors are prohibited

Agricultural Resources

- The phased development of the Project site will allow small scale temporary grazing use to continue during a portion of the implementation phase of the Project.

Air Quality

- The Project is proposed to be phased, with the initial Phase IA grading limited to the area necessary to achieve mass balancing and proper drainage of the overall property, leaving approximately 40 percent (over 500 acres) of the site in its current condition until such time the remaining phases begin to develop. This phased development will reduce the overall area being disturbed at any one time, and will reduce the overall annual grading emissions.
- Project design features incorporate applicable recommendations from the Attorney General and CARB Scoping Plan, as discussed in Section 4.5, *Climate Change*. These measures will not only reduce greenhouse gas emissions, but will also reduce criteria pollutant emissions of the Project.
- The Project's water supply sources are focused first on local supplies, which will reduce reliance upon imported water, thereby reducing air emissions associated with pumping and delivering the water to the site.

Biological Resources

- The Project is proposed to be phased, with the initial Phase IA grading limited to the area necessary to achieve mass balancing and proper drainage of the overall property, leaving approximately 40 percent (over 500 acres) of the site in its current native condition until such time the remaining phases begin to develop. This phased development will create an interim condition of reduced biological resource impact.
- The proposed Project has been planned to avoid all significant indirect impacts associated with drainage, toxics, lighting, noise, barriers, invasive species and brush management that could potentially occur on the Project site. Mitigation measures and best management practices will be implemented in compliance with MSHCP Wildlands/Urban Interface policies, thus reducing all indirect impacts on the Project site to a level that is less than significant; refer to Section 3.0, *Development Plan*, and 4.0,

Design Guidelines, and the analysis and mitigation measures contained in Sections 4.9 (*Hydrology and Water Quality*), 4.8 (*Hazards and Hazardous Materials*), 4.1 (*Aesthetics, Light, and Glare*), 4.11 (*Noise*), and this Section of the EIR.

- The Project includes approximately 428.8 acres of open space, including 253.9-acre golf course open space through which Smith Creek flows in addition to approximately 66.5 acres of active recreation, 70.1 acres of passive landscaped and natural open space (56.3 acres in the northeast corner of the Project), and 38.3 acres of drainage channel and basin areas as described in the Project Description. The golf course open space will incorporate native plant materials into its plant palette, particularly in those areas occupied by the Smith Creek alignment, for mitigation of biological impacts occasioned by the realignment of Smith Creek. The plant palette and re-vegetation associated with Smith Creek is designed to replicate natural conditions and to preserve and enhance biological values. Basin areas will be vegetated and the landscaping of active recreational areas will increase the availability of plant cover and trees on the site, providing habitat for birds and forage for birds of prey.
- The Project incorporates drainage and water quality features that would maintain water quality within the Smith Creek and Pershing Channel drainages and preserve/enhance downstream water quality within the Smith Creek drainage, indirectly protecting the biological resources and functions of the drainage.
- Project implementation would result in enhanced vegetative cover on the site, including trees and shrubs that could enhance the availability of nesting sites for migratory birds in the Project area as compared to the current nearly treeless condition of the Project site.
- Following the initial Phase I mass grading of the Project site, the site will be reseeded and cattle grazing activities will be allowed to continue in areas prior to future development, which will preserve in an interim condition of the grassland areas that provide foraging habitat for birds of prey and vegetative cover for native species currently using the site.

Climate Change

- The Project is proposed to be phased, with the initial Phase IA grading limited to the area necessary to achieve mass balancing and proper drainage of the overall property, leaving approximately 40 percent (over 500 acres) of the site in its current native condition until such time the remaining phases begin to develop. This phased development will reduce the overall area being disturbed at any one time, and will reduce the overall annual grading emissions.

- Project design features incorporate applicable recommendations from the Attorney General and CARB Scoping Plan, as discussed in Impact 4.5-4 below.
- The Project's water supply sources are focused first on local supplies, which will reduce reliance upon imported water, thereby reducing GHG emissions associated with energy required for pumping and delivering the water to the site.
- Tables 4.5-3 and 4.5-4 identify Project Design Features that will reduce greenhouse gas emissions, as well as criteria pollutant emissions.

Cultural and Historic Resources

- The Project has been redesigned from the previously approved Deutsch Specific Plan, which proposed grading the entire Specific Plan property. As such, the preservation of the northeastern portion of the site in permanent open space will reduce the potential for disturbance of previously unidentified paleontological and archaeological resources.

Geology, Soils and Seismicity

- The Project has been redesigned from the previously approved Deutsch Specific Plan, which proposed grading the entire Specific Plan property. The redesigned Specific Plan and associated tract maps avoid grading the more steep northern portions of the site, and also have incorporated a setback area to ensure that structures are not placed on the identified fault traces within the Alquist-Priolo Zone identified on the Project site.
- In the ultimate condition, the developed site would result in substantially reduced wind- and runoff-induced erosion.
- The Project incorporates appropriate setbacks from the Alquist-Priolo zone established for strand A and assumed for strand B of the Banning fault.
- The Project would adhere to all of the seismic requirements incorporated into the 2010 California Residential Code and 2010 California Building Code (or most current building code) and the requirements and standards contained in the applicable chapters of the City of Banning Municipal Code.
- The Project would include the implementation and maintenance of BMPs to reduce or avoid soil loss due to wind and water erosion.
- Prior to development of any upstream areas of the site, the potential for conveyance of debris originating in the off-site watershed would be accounted for in the design of on-site drainage facilities.

- The Specific Plan requires that each phase of the development include an erosion control plan, consistent with the requirements of MC Chapter 18.

Hazards and Hazardous Materials

- The Project proposes the lower residential density of the Project with larger lots in the northern portion of the site to allow incorporation of fuel modification zones into lots abutting wildland areas and to allow for better compatibility with the existing land form. Maintenance of fuel modification/management zones will be the responsibility of individual homeowners on private property; however a maintenance easement will be recorded over fuel modification zones located within these private lots that will permit either the Master Homeowners Association, LLMD, or other appropriate maintenance agency/entity approved by the City of Banning, to enter into the property to ensure adequate and uniform maintenance. Portions of fuel modification zones on private lots located outside of the lot fence line will be maintained directly by the HOA or LLMD while those portions fuel modification zones on private lots located inside the fence line will be maintained by the homeowner but will be inspected by the LLMD or HOA and the LLMD or HOA will have the ability to enter into the private lot if necessary to ensure appropriate maintenance of the fuel modification zone if the homeowner fails to provide that maintenance.
- School sites have been relocated in consultation with the local school districts, in part to ensure adequate separation from existing SCE power lines and the SCGC 30-inch high pressure gas line. To the extent that this location may change as the project develops, other potential school sites would observe the same required setbacks from the SCE transmission lines and SCGC high pressure gas line.
- Portions of the Southern California Gas Pipeline will be relocated to ensure that the entirety of the pipeline is located within paved streets or within the golf course. No homes will have frontage on the streets where the pipeline will be located and proposed homes will be further buffered by parkway setbacks, block walls, rear yard setbacks and the golf course to reduce risk in the event of a leak or other upset. Existing pipeline will be replaced with residential grade pipeline by Southern California Gas Co. per PUC requirements.
- The Alternative On-Site Satellite Wastewater Treatment Plant will store all potentially hazardous materials (primarily chlorine) in a separate building with appropriate safeguards as required by law and will provide appropriate signage and inventory control as required by the Fire Department so as to reduce any potential risk of upset.

- The Project will include the construction of a 1.6-million gallon water storage reservoir, a 1.4-million gallon water storage reservoir, a 0.5-million gallon water storage reservoir, a 1-million gallon recycled water storage reservoir and a multi-use basin which can store water for groundwater recharge. The reservoir sizes are approximate. Three of the water storage reservoirs would be located in the north/northeastern portion of the site, and the multi-use basin would be located in the northwestern portion of the site where Smith Creek enters the property. These reservoirs will provide sources of water available for both structure and wildfire response, as well as potable and irrigation use.

Hydrology and Water Quality

- The Project shall conform to all of the requirements imposed by the Riverside County Flood Control and Water Conservation District Hydrology Manual, the requirements of the City of Banning's adopted Storm Water Ordinance (Title 13 of the Municipal Code), the requirements of the Whitewater River Watershed Stormwater Management Plan, and the NPDES General Construction Permit.
- The Project has incorporated a comprehensive drainage, water quality, groundwater recharge and biological resource mitigation program into the site, consisting of the surface drainage system, water quality basins, North Basin, realigned Smith Creek, recharge basins, and Smith Creek culvert improvements. This will reduce stormwater runoff volume and velocity, improve stormwater runoff water quality during storm events and low-flow irrigation volumes, improve groundwater recharge, and create biological resource habitat. Key system features are summarized in Section 3, the Draft Butterfield Specific Plan, draft TTMs on file at the City, and are briefly summarized below.

Land Use and Planning

- To be more compatible with the existing residential development, the Project has designated Planning Area 50 as Low Density Residential, with an average lot size of 7,500 sq. ft. Furthermore, starting at the back of the closest existing off-site residential lots located south of PA 50, there will be approximately 390 ft. of open space (SCE easement) between the back of these lots and the southern boundary of Planning Area 50.
- The approved Deutsch Specific Plan included 351 acres of residential land use in Planning Area 1 and 31 acres of park in Planning Area 2². The proposed Butterfield Specific Plan Project provides 209.2 acres of residential (PAs 50, 51, 52, 60, and 61), 71.8

² Refer to The Butterfield Specific Plan, Exhibit 1.3, *Specific Plan Comparison*.

acres of open space (PAs 67, 69, 73, 74 and 75), 11.3 acres of school site (PA 68), and 4.2 acres for existing utility (PA 70). This comparison generally covers the same area.

Noise

- The Project is proposed to be developed in Phases, which include four mass grading phases and five development phases. The initial Phase IA grading would be limited to the area necessary to achieve a balanced site and proper drainage, leaving approximately 40 percent of the site in its natural condition until the later phases of Project development, thereby reducing the noise impacts associated with mass grading during the interim implementation phase.
- The Project has been redesigned from the currently approved Deutsch Specific Plan, to retain the northern steeper slopes in natural open space. In addition, in response to initial public scoping and discussions with adjacent residents, the applicant designed the Land Use Plan to create low-density residential with higher minimum average lot sizes with substantial separation between proposed Project development areas east of Highland Home Road and existing residential areas east of Highland Home Road to the south, reducing potential noise impacts from construction in this area.
- The Project will be constructed in compliance with all applicable provisions of Chapter 8.44 (*Noise*) of the City's Municipal Code including, to the extent feasible, observing time limitations on construction noise that exceeds Base Ambient Noise Levels pursuant to statute.
- All residential structures built on the Project site shall incorporate design measures to ensure that interior noise levels for residential development do not exceed 45 dBA, in accordance with Title 25 (California Noise Insulation Standards) and the City's Municipal Code.
- All development on the Project site shall comply with State Code requirements for unit-to-unit airborne sound isolation, both laterally and vertically, and for vertical impact sound isolation in multi-family residential construction.
- During the preparation of construction drawings for project-specific development, the exact acoustical specifications for window glass in buildings with unshielded first and second floor windows shall be determined, pursuant to the requirements of the City's General Plan and the City's Municipal Code.

Public Services and Utilities

- In addition to paying over \$7 million³ in potential City fire facility impact fees, the Project proposes to reserve and/or dedicate a site for the construction of a new fire station within the Project site, currently illustrated in the southeast corner of Planning Area 60 though subject to location change based on the City's preference. Reservation of the fire station site would aid towards substantially improve fire services within and beyond the Project area and place additional resources in closer proximity to wildland areas, helping to reduce the risk associated with wildfire for the entire community.
- The Project will include the construction of three above-ground potable water storage tanks with a total storage capacity of approximately 3.5 million gallons, the installation of pump stations, and the installation of water mains, laterals, and hydrants sufficient to provide minimum fire flow at required pressure to all portions of the Project, as well as operational and emergency flows.
- The Project will include the construction of an approximate 14-acre multi-use basin within the 30.4-acre PA 71 to detain upstream flows and provide water storage for irrigation and other needs, including emergency water supplies in the event of fire.
- All homes within the Project constructed as of 2011 will include in-house fire protection sprinkler systems per new State regulations, which the City will enforce through its building and occupancy permit process.
- Prior to approval of any final tract map, the applicant shall submit a Fire Response Plan consistent with City Municipal Code and Fire Department regulations to insure full compliance with building codes, fuel modification requirements, provision of irrigation, adequacy of water supply and pressure, adequacy of access and lighting, etc.
- The Project will be developed in phases over a period of up approximately 30 years, which would allow the City Fire and Police Departments time to respond to any need for additional facilities, equipment and/or officers that might be required to serve the Project area, as funding becomes available. The Project will be paying over \$4 million in dedicated Police Facility Fees, in addition to all other fees assessed and Project contributions toward General Fund revenue through property tax and sales tax.
- The majority of the residential development within the Project consists of traditional single-family homes having frontage on public streets. This type of development

³ For residential units at current prevailing fees of \$1,335/unit, not counting miscellaneous City fees, public improvement fees, plan check fees, and general fund revenue through property and sales tax.

provides “eyes on the street”, which is the essence of defensible space design, as required by the City’s General Plan.

- Based on meetings with City police officials, the Applicant modified Specific Plan design guidelines and sited school facilities to provide dual vehicle access into and out of all development areas, landscaping along Project perimeter walls to deter graffiti, and has located schools and parks so that they would have adequate street frontage to facilitate police surveillance.
- In addition to paying prevailing school impact fees at the time of building permit issuance,⁴ the Specific Plan addresses the need for additional school facilities created by its development by setting aside two 11+ acre school sites (i.e., in PA 68 for Banning USD and PA 20 for Beaumont USD) to increase available school facilities.
- The Project will be developed in phases over a period of up to 30 years, which would allow the San Geronio Hospital ample time to respond to any need for additional facilities that could be triggered by Project development, as funding becomes available.
- The Project includes park, open space and recreational uses that total approximately 428.8 acres or approximately 27.8 percent of the Project footprint. Developed park acreage may be credited toward part, or all, of the Project’s required parkland fees, which are estimated to be in excess of \$10 million.
- The Project would offer two elementary school sites for dedication to the Banning and Beaumont USDs. These sites, totaling 23 acres, would be located in PA 20 and PA 68. If constructed, both sites could potentially provide joint use of play ground / field facilities for neighborhood recreational uses pursuant to with the school districts.
- The Project will include 19 neighborhood mini-parks in PAs 22-34, 62, 64, 65-67, and 72 that would include combinations of play equipment, play areas, sport courts, shade structures, picnic areas, passive turf play areas, sand boxes, benches, and basic related amenities.
- The Project will include neighborhood recreation parks in PAs 21 and 63, ranging in size from 3 to 4 acres, to serve the active and passive recreational needs of residents. The parks would be centrally located and would be accessible through a pedestrian system of walkways and paths.

⁴ Estimated to be more than \$40 million based on residential units alone and current prevailing fees, assuming an average of 2,500 SF per unit.

- The Project plans to provide 41 acres of larger community parks with sports facilities within portions of the Project's 430-foot-wide SCE easement, specifically in PAs 36, 37, and 38. These parks are intended to be used for fields and sports courts, playgrounds, trails, and off-street parking and can be accessed via pedestrian walkways or public streets.
- The Project would include open space and potentially an 18-hole golf course and clubhouse in the 253.9-acre area that includes PAs 35 and 39, located through the central portion of the Project area. Though privately owned, the golf course would be open to the public seven days a week with the potential for nighttime driving range hours.
- The Project would include the construction and/or extension of trails within and adjacent to open space PAs 19, 50-52, 60-61, 68, 69, 73, 74, 75, and within the natural open space area located on the northeastern portion of the Project site. These trails will provide connections between the residential communities and the natural open space areas within and adjacent to the Project.
- The Project would also include a 30.4-acre multiuse basin in PA 71, where Smith Creek enters the site. This basin could also serve as a recreational amenity for viewing, hiking, fishing, and/or picnicking.
- The Project's parks, trails and open space areas would be maintained by a Landscape Lighting and Maintenance District (LLMD), or other similar entity for use by the Project residents and would not impact the City's General Fund. The Project golf course will be specifically open to the general public for a use fee and owned, operated, and maintained by a private operator.
- Homes within the Project have the option to participate in Pardee Home's "Living Smart" program, which meets or exceeds local, State, and national standards for green home building, including the incorporation of features and options that reduce energy demand and promote use of alternative energy sources and non-motorized transportation (refer to Section 4.5, *Climate Change*).
- The "Sunset (Deutsch) Substation," called for in the City's 10-Year Electricity Master Plan and as allowed for in PA 70 of the Specific Plan, has already been completed by the City (2009) on the 4.2-acres located within this PA. The substation facilitates interconnection with SCE's transmission lines and provides for the distribution of electricity to the Project and other sites in the City's northwest area.
- As part of the City's standard plan check review and tract map development process, the Applicant will make appropriate provision for telecommunication services.

- The Project has been designed to provide an optional satellite wastewater treatment facility, on-site (southern portion of PA 70), should connection and extensions to the City's existing WWTP be less desirable. This provides the opportunity to divert wastewater from the City's existing plant, and maximize use of recycled water.
- The Project has been designed to maximize use of recycled water, through provision of a comprehensive on-site recycled water system pursuant to City requirements. In addition, as note above, the Project includes options to either utilize an on-site water treatment plant to deliver recycled water to the site (and thereby diverting wastewater from the City's treatment plant), or deliver recycled water from the City's plant should recycled water be available from the existing plant in the future.
- The optional on-site treatment plant also creates the opportunity to divert additional wastewater flows generated by other (off-site) existing or future uses, to further reduce flows of wastewater to the City's treatment plant, allowing its new capacity to support additional development, and further maximize use of recycled water in compliance with the City's General Plan Goals and Policies. These recycled water options are addressed in further detail in Section 4.14, *Water Supply*.
- Project homes will be constructed with "standard" and "optional" features pursuant to Pardee Home's "Living Smart" Program, which includes encouraging, among other things, material conservation and the use of recycled or sustainable resources in new homes.
- All construction on the Project site would comply with the solid waste diversion mandate contained in the 2010 California Green Code, which includes provisions requiring the diversion of a minimum of 50 percent of all construction waste.

Traffic and Transportation

- The Project proposes non-vehicular circulation facilities that will include bicycle lanes, trails, pathways, and sidewalks that promote alternative non-vehicular modes of transportation.
- The Project proposes mixed use commercial, recreational and school facilities within the Specific Plan, which will reduce vehicle trips to the adjacent City and regional street system.
- The Project incorporates substantial circulation system improvements into the Specific Plan, including Highland Home Road extension, retention of a local frontage street to serve existing residences along existing Highland Home Road adjacent to the Project, and allowance for ultimate ROW required for adjacent City streets.

- The Project has provided for secondary and emergency access, at the request of City staff, within PAs 2, 3, 4, 5, 6, 7, 8, 9 and 11.
- The Butterfield Specific Plan will allow and provide for the use of electric Low Speed Vehicles (LSVs) or Neighborhood Electric Vehicles (NEV's) on all internal Project streets. The Butterfield Specific Plan proposes roadway cross sections that provide striped dual NEV and bike lanes on the right side of all proposed Collector Streets.
- City of Banning Pass Transit and Riverside County Transit Agencies shall be consulted, in conjunction with Project development, to coordinate the potential for expanded transit/bus service and vanpools, and to discuss and implement potential transit turnout locations within the Project area

Water Supply

Groundwater Recharge Facilities

- The Project proposes an on-site groundwater recharge system that could assist the City in replenishing the Beaumont Basin located beneath the Project site. The proposed system would have the capacity to recharge the basin with a portion of the City's SWP allocation from the Pass Agency. If approved and permitted, potential surplus recycled water generated by the Project, if available, could be used for recharge purposes. The recharge system would be facilitated in part by extending a pipeline from the existing SWP pipeline at the Pass Agency Little San Geronio Creek Spreading Grounds to the proposed north basin in PA 71 via Brookside Avenue (refer to Section 3.6.3, *Off-Site Project-Related Infrastructure*).

Water Distribution Facilities

- The Project proposes three to four above-ground steel water storage tanks for potable water. The Project proposes three (3) potential pump station locations and in-tract water pipelines, which would connect to the City's existing system at Highland Home Road and Wilson Street as well as "C" Street and Wilson Street. In addition, the Project would also provide opportunities for three potential interconnects (with additional pump stations) with the Beaumont-Cherry Valley Water District along Highland Springs Avenue.

Recycled Water

- Recycled water, as it is available, will be used to irrigate the golf course and the common landscaped areas of the Project in order to reduce the demand for domestic (potable) water. The City has completed plans and prepared environmental analysis for a 1.5

mgd upgrade, referred to as the Phase I project, of the City's main treatment plant that will produce and supply recycled water. Funding for the Phase I project has been identified and the upgrade should be completed by year 2015 (see Appendix J, *Water Supply Assessment*, Section 6.4, for further detail). In addition to on-site infrastructure, the recycled water system for the Project would require connecting and pumping recycled water from the City's wastewater treatment plant through planned City pipelines to the Project site. The Project also includes the option of constructing an on-site "satellite" wastewater treatment plant to be owned and operated by the City of Banning.

3.9 REQUIRED PERMITS AND APPROVALS

Implementation of the Butterfield Specific Plan Project requires various approvals and permits for local, State, and federal agencies with jurisdiction over specific elements of the Project. These are listed in Table 3.0-4, *Required Approvals*. Certain primary discretionary approvals are required for the Project as prerequisites to any subsequent actions by any other agencies or by the City. Primary approvals include the following:

- 1) **Butterfield Specific Plan.** The Specific Plan (SP) has been submitted to the City as a comprehensive Specific Plan Amendment to the previously approved Deutsch SP and proposes substantially the same overall land uses. However, if approved, the proposed Butterfield SP would entirely supersede the Deutsch SP and is, therefore, considered to be a restated and amended Specific Plan. The Butterfield SP addresses, at a conceptual level, development of the entire Project area including conceptual grading, infrastructure and phasing.
- 2) **General Plan Amendment and Zone Change.** State law requires a finding of conformance with the General Plan as prerequisite to the approval of any discretionary land use action, such as the adoption of a Specific Plan. The City's General Plan Land Use Element and the City's Zoning Map include specific land use designations that reflect the distribution of land uses and densities pursuant to the approved 1993 Deutsch Specific Plan. Since the Butterfield Specific Plan includes revisions to specific Planning Area boundaries and changes in the location land uses and residential densities or specific use proposed for these PAs, a General Plan Amendment and a change of the Zoning Map is required to conform the General Plan, Zoning Map and Specific Plan to one another. The General Plan Amendment and Zone Change would be processed concurrently with the Specific Plan. In its action to approve the proposed Project, the City Council would first certify the EIR, then adopt the General Plan Amendment by resolution, then approve the proposed zone change(s) by ordinance or resolution and finally, would adopt the Specific Plan by ordinance or resolution. The proposed General Plan Land Use and Zoning would simply be "Butterfield Specific Plan", essentially incorporating the Specific Plan into the General Plan and Zoning.

-
- 3) **Development Agreement.** The previously approved Deutsch Specific Plan included a Development Agreement. As part of the proposed Butterfield SP, the Applicant would seek City approval of an Amended Development Agreement. The provisions of this Agreement are not anticipated to result any additional environmental impacts beyond those addressed in this EIR.
- 4) **Water Supply Assessment (WSA).** Pursuant to State law, a Project meeting certain criteria must demonstrate that it has secured a supply of potable water sufficient to support the demands of the Project prior to obtaining any discretionary approvals required for its implementation. This Project falls within the definition of a “water project” pursuant to CEQA Guidelines Section 15155. A Water Supply Assessment (WSA) has been prepared for the Project by City of Banning Water Department and must be adopted by the City prior to certification of the Final EIR. The draft WSA is included in the Appendix of this EIR, is the basis for the analysis provided in Section 4.14, *Water Supply*, and the would be adopted by the City of Banning concurrent with the certification of the Final EIR and prior to any other discretionary approval for the Project.
- 5) **Future discretionary and ministerial approvals.** Implementation of the Butterfield Project would require various additional discretionary and ministerial approvals. These include, but may not be limited to, the following:
- **Tentative Tract Maps.** A tentative and final map are required for all subdivisions creating five or more parcels, five or more condominiums, a community apartment project containing five or more parcels, or the conversion of a dwelling to a stock cooperative containing five or more dwelling units, unless specifically excepted. The City of Banning outlines 7 steps for the tentative tract map procedures:
 - Project is consistent with the General Plan and the Zoning Ordinance.
 - File an application
 - Environmental Review (required)
 - Staff Review for planning commission.
 - Staff, planning commission and the City Council will review. When approved City Council will adopt the resolution.
 - Applicant may appeal the decision within 10 days of the adoption of the resolution.
 - The applicant must complete and have final map and related improvement plans approved and recorded with the County of Riverside within 24 months or the tentative map expires.

To implement the proposed Project, the Applicant would submit approximately 11 tentative tract maps (TTMs) for individual subdivisions. These TTMs would include two maps ("A maps") that cover the north and south portions of the Project site, respectively, and define the boundaries of the Planning Areas in a manner consistent with the Specific Plan. The "A" maps are proposed for conveyance and financing purposes. The remaining approximately nine TTMs would create individual subdivisions within the Specific Plan and would legally define individual lots and improvements within the respective subdivisions.

While the proposed Specific Plan, as a programmatic policy document, provides for the development of a maximum of 5,387 residential units, the tract maps may reflect a more detailed development concept for the site and may propose fewer residential units and/or developments pursuant to the various commercial or residential use overlays. The EIR addresses the full potential buildout, including 5,387 residential units.

The initial set of TTMs would be submitted for final City review and approval following adoption of the Specific Plan.

- **Mass Grading Plan.** A Mass Grading Plan that would address initial mass grading as part of "Phase IA" would be submitted to the City subsequent to the adoption of the Specific Plan.
- **Regulatory Permit Applications.** Concurrent with or following Draft EIR submittal, Pardee Homes may submit applications to one or more regulatory agencies seeking permits or approvals related to site development, including off-site infrastructure (i.e., encroachment permits), water supply (e.g., State and local approvals related to State Water Project and local groundwater), and resource agencies (e.g., for Project-related effects upon "jurisdictional" drainages and/or habitat).
- **Design Review.** The design review process was instituted as part of Banning's development review process to promote quality design, site relationships, and other aesthetic considerations of development in the City.

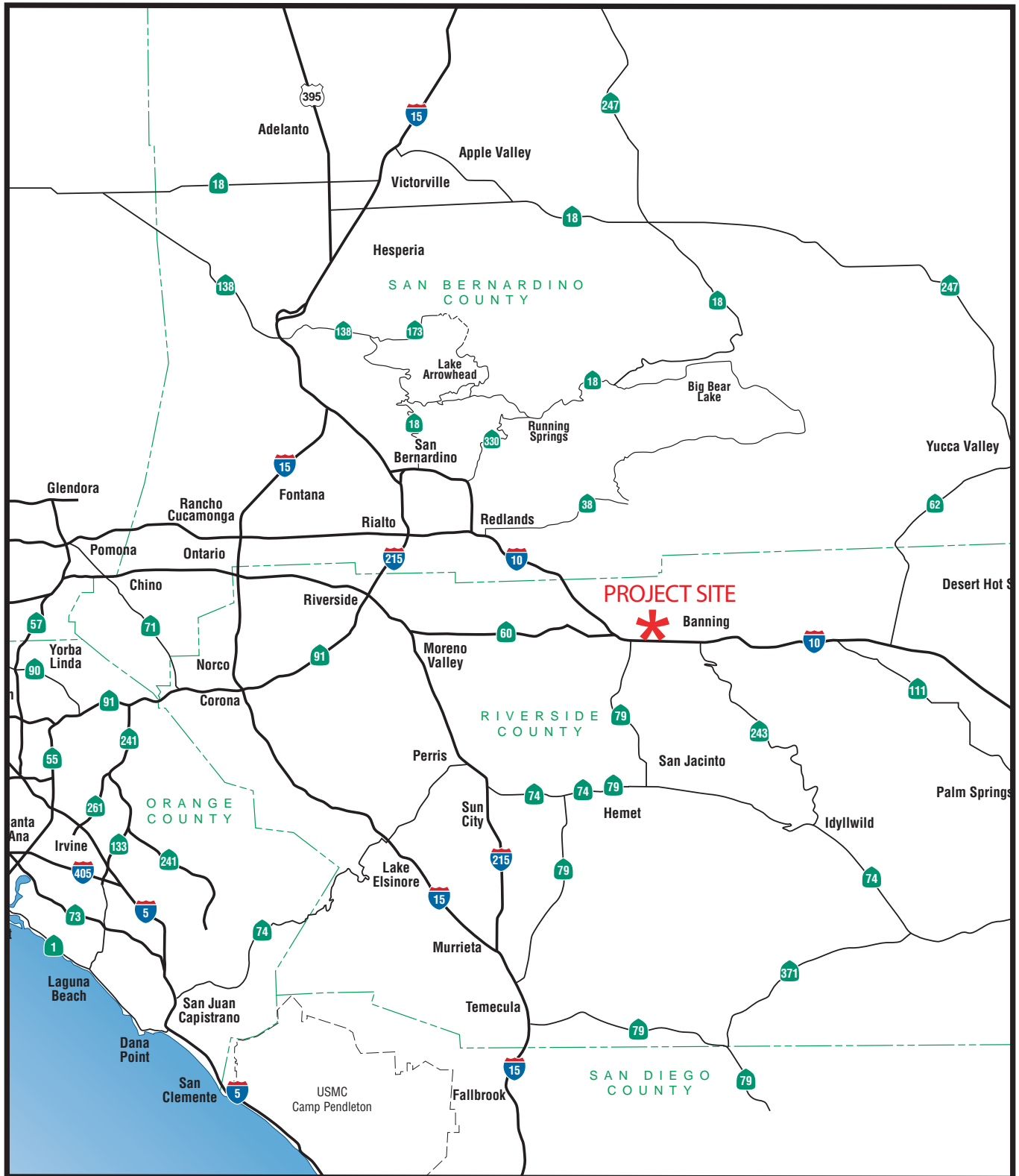
At this time, the Applicant anticipates submitting the TTMs, rough grading plans, site plans and/or improvement plans for the initial project phase shortly after Specific Plan approval.

BUTTERFIELD SPECIFIC PLAN
Draft Subsequent EIR

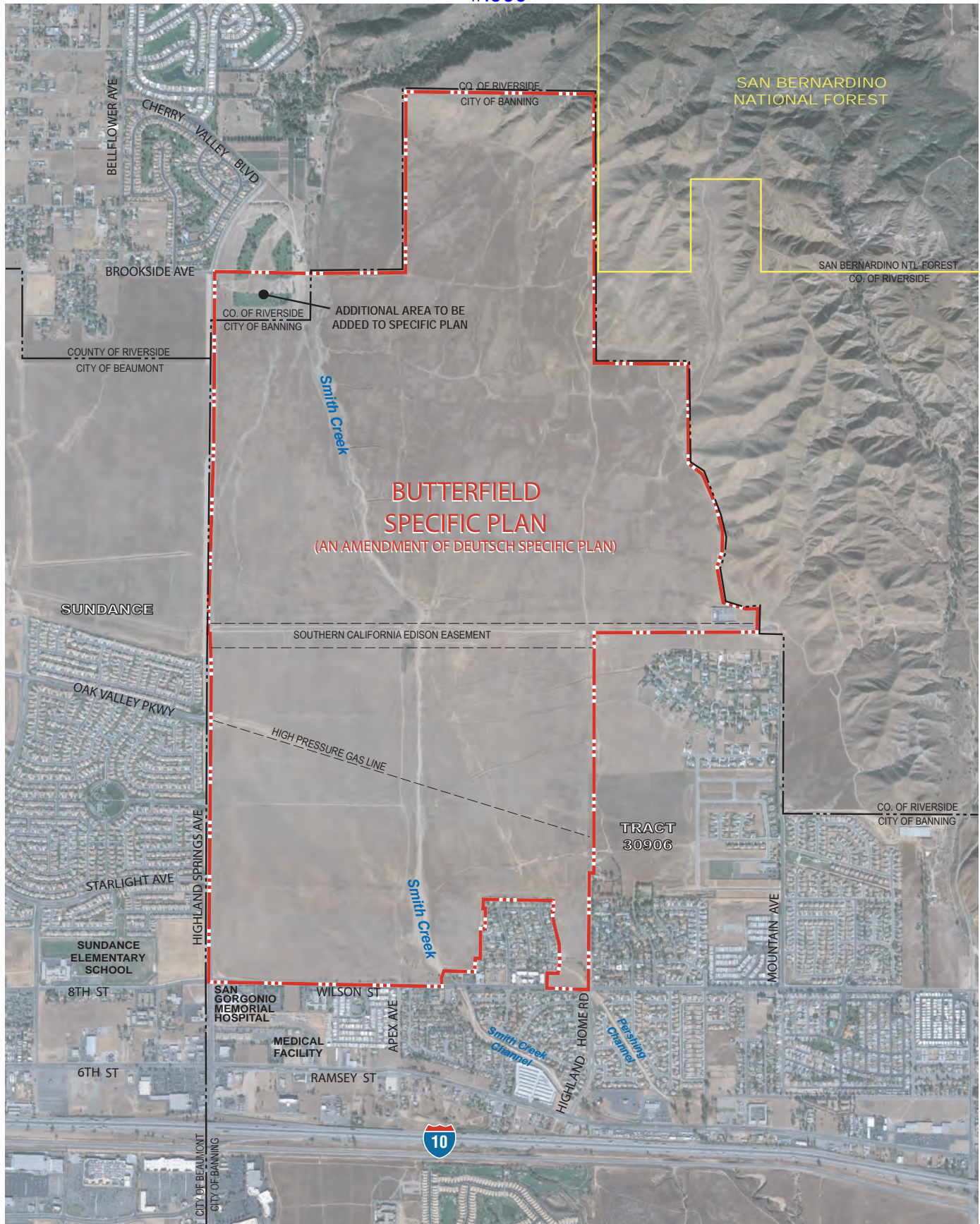
3.0 PROJECT DESCRIPTION

**Table 3.0-4
Required Approvals**

Permit/Approvals Currently Being Sought	Agency
Final EIR Certification Project Approvals <ul style="list-style-type: none"> - General Plan Amendment - Zone Change - Specific Plan Amendment (<i>amended and restated</i>) - Amended Development Agreement 	City of Banning
Potential Future Permit/Approvals	Agency
<ul style="list-style-type: none"> - Tentative Tract Maps - Design Review (site plans) - Improvement Plans - Rough Grading Plans 	City of Banning
Streambed Alteration Agreement	California Department of Fish and Game
404 Permit	United States Army Core of Engineers (U.S. ACOE)
NPDES Permit, 401 Certification, SWPPP, and other water quality permits	California Regional Water Quality Control Board
Conditional Letter of Map Revision (CLOMR)	Federal Emergency Management Agency (FEMA)
Encroachment Permits/Easements	City of Beaumont, Caltrans, Southern California Edison, others
Community Facilities District (CFD)	City of Banning
Utility Line Relocation	California Public Utilities Commission(CPUC), Southern California Edison (SCE)
Building Plans/Permits	City of Banning
Grading and Infrastructure Plans/Permits	City of Banning
Flood Control Facility Review/Acceptance	Riverside County Flood Control and Water Conservation District
Certificates of Occupancy	City of Banning
Conditional Use Permit(s)	City of Banning
Annexation, SOI Amendment, GPA (PA 43B)	Local Agency Formation Commission (LAFCO), City of Banning
Individual Waste Discharge Requirements (WDR) for discharge of recycled water, Water Recycling Requirements, Master Recycling Permit	California Regional Water Quality Control Board
Storage Agreement	Beaumont Basin Watermaster
Use of State Water Project Facilities	Department of Water Resources, San Geronio Pass Water Agency and/or San Bernardino Municipal Water District



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 1.1)



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 1.2)
 (Google Earth Imagery - NOV. 16, 2009)

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

RBF
 CONSULTING

NOT TO SCALE

5/27/11 JN: 65-100290

Local Vicinity Map

AR 003658

EXHIBIT 3.0-2

AR000262

SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 3.1A)



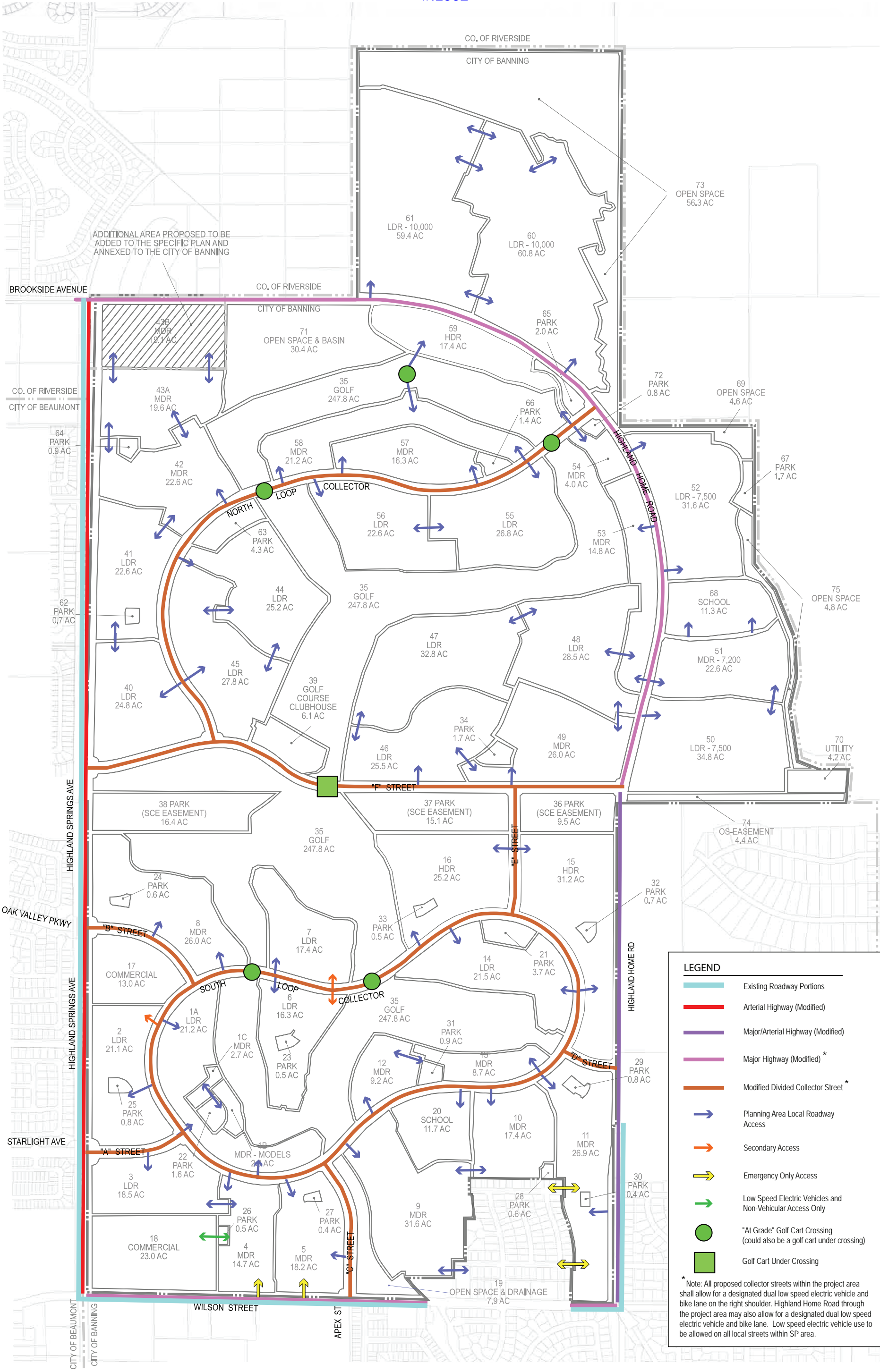
5/27/11 JN: 65-100290

PARDEE HOMES BUTTERFIELD SPECIFIC PLAN EIR

Land Use Plan

AR 003659
EXHIBIT 3.0-3

AR000263



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 3.2)



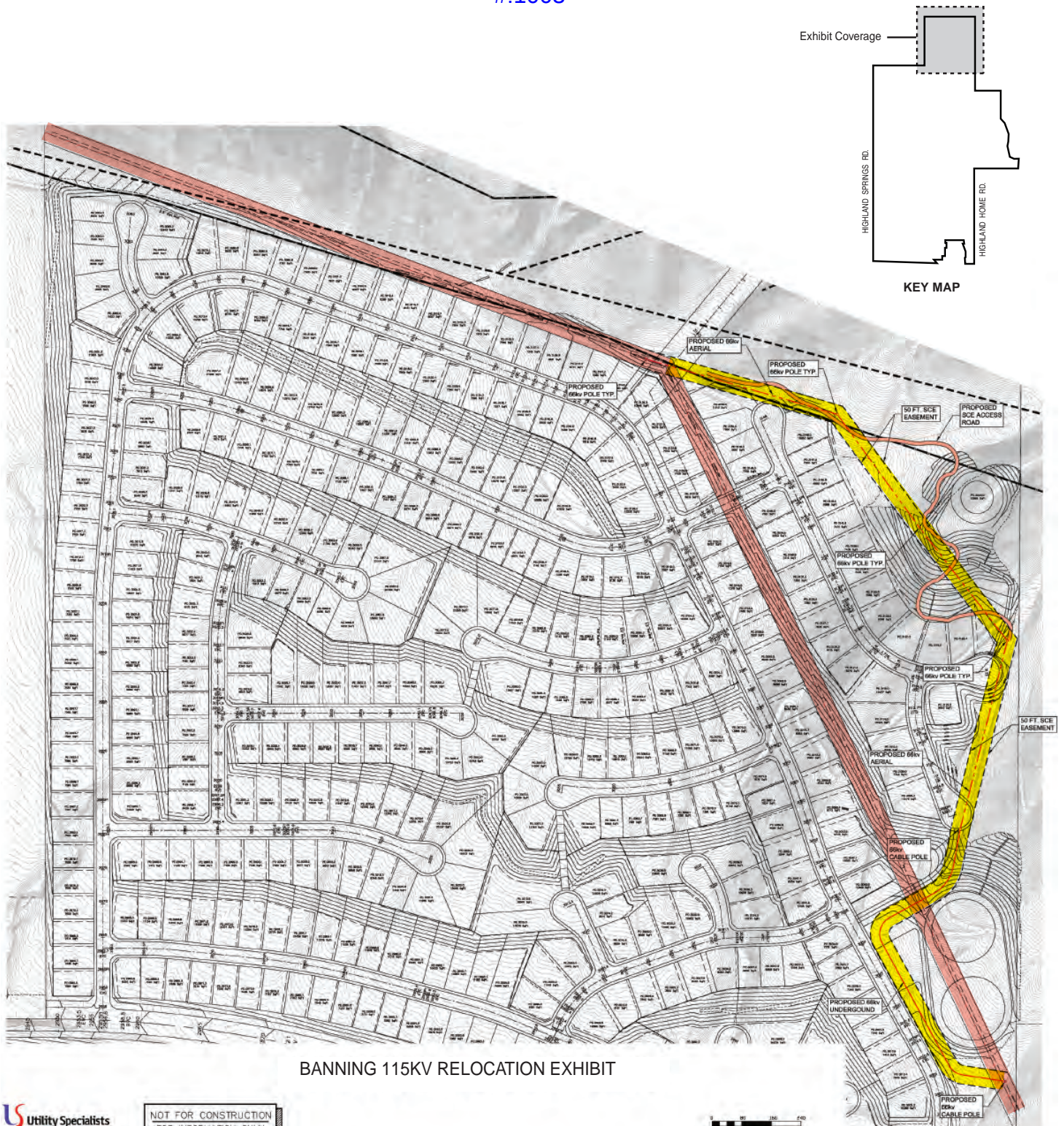
NOT TO SCALE

5/27/11 JN: 65-100290

Note: Additional offsite improvements are recommended in the Traffic Impact Assessment

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR
Vehicular Circulation Plan
AR 003661
EXHIBIT 3.0-5

AR000265



Existing SCE 115kv Alignment

Proposed SCE 115kv Relocation Alignment

SOURCE: Utility Alignments: Utility Specialists, email communication on August 27, 2007
 Base Tract Maps: Draft TTM No. 35942, 4/15/08, Revised 1/30/09
 Draft TTM No. 35947, 5/19/08

RBF
CONSULTING

NOT TO SCALE

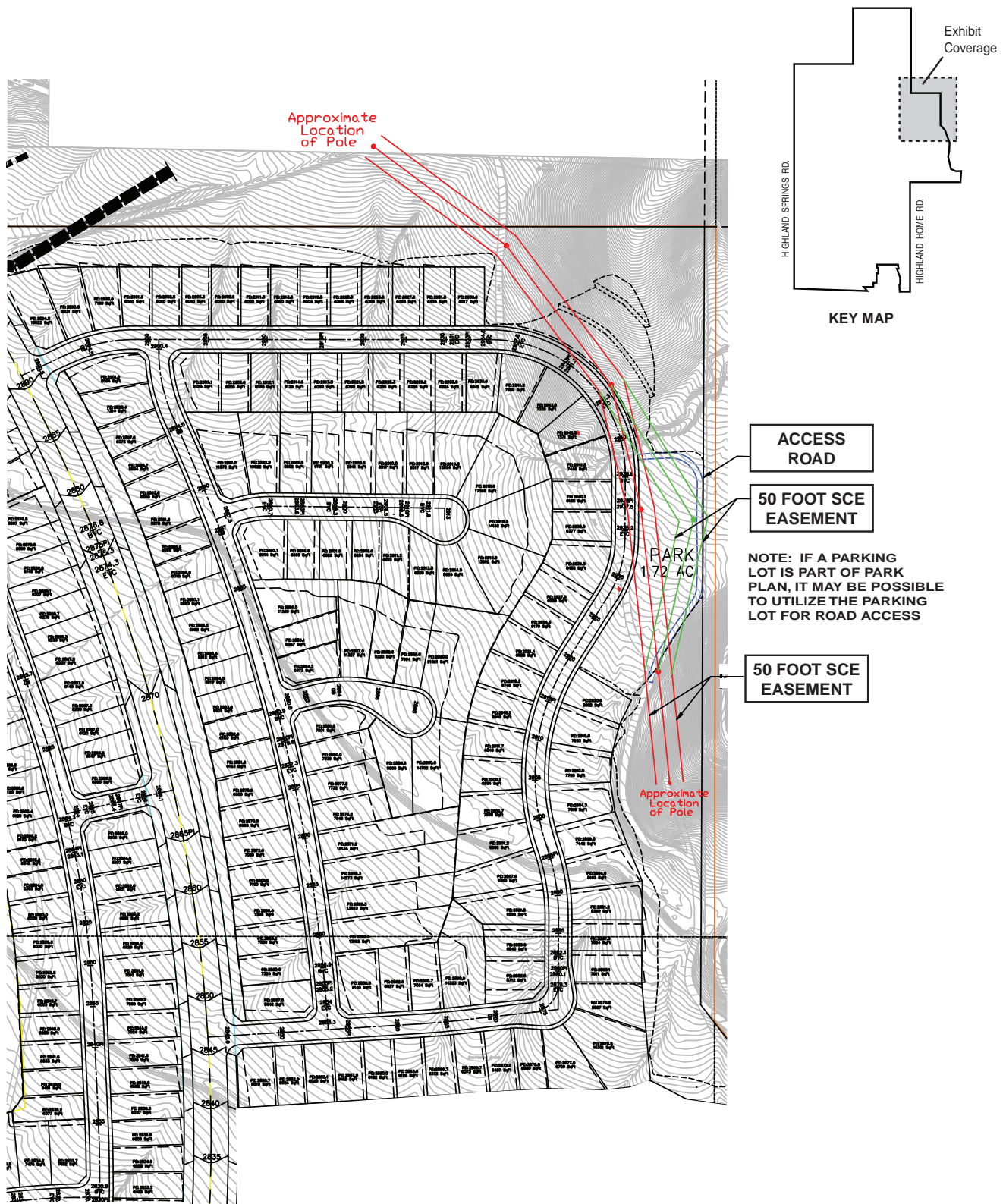
5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

Utility Relocation

AR 003662
EXHIBIT 3.0-6A

AR000266



SOURCE: Utility Alignments: Utility Specialists, email communication on February 1, 2008
 Base Tract Maps: Draft TTM No. 35942, 4/15/08, Revised 1/30/09
 Draft TTM No. 35946, 5/19/08



NOT TO SCALE

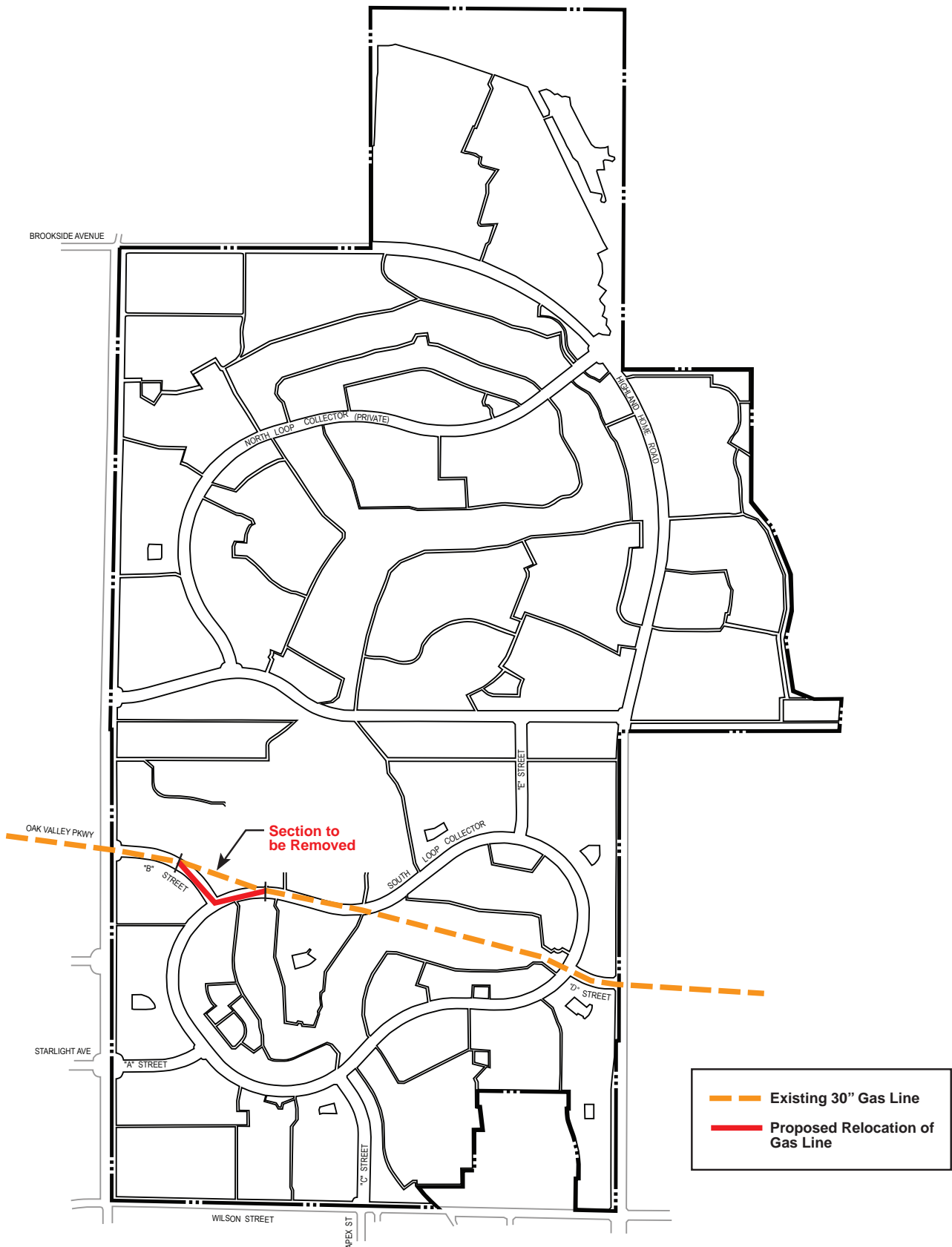
5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

Utility Relocation

AR 003663
 EXHIBIT 3.0-6B

AR000267



SOURCE: Gas line existing alignment per Draft TTM No. 35966, 5/19/08
 Google Earth Imagery 11/16/09



NOT TO SCALE

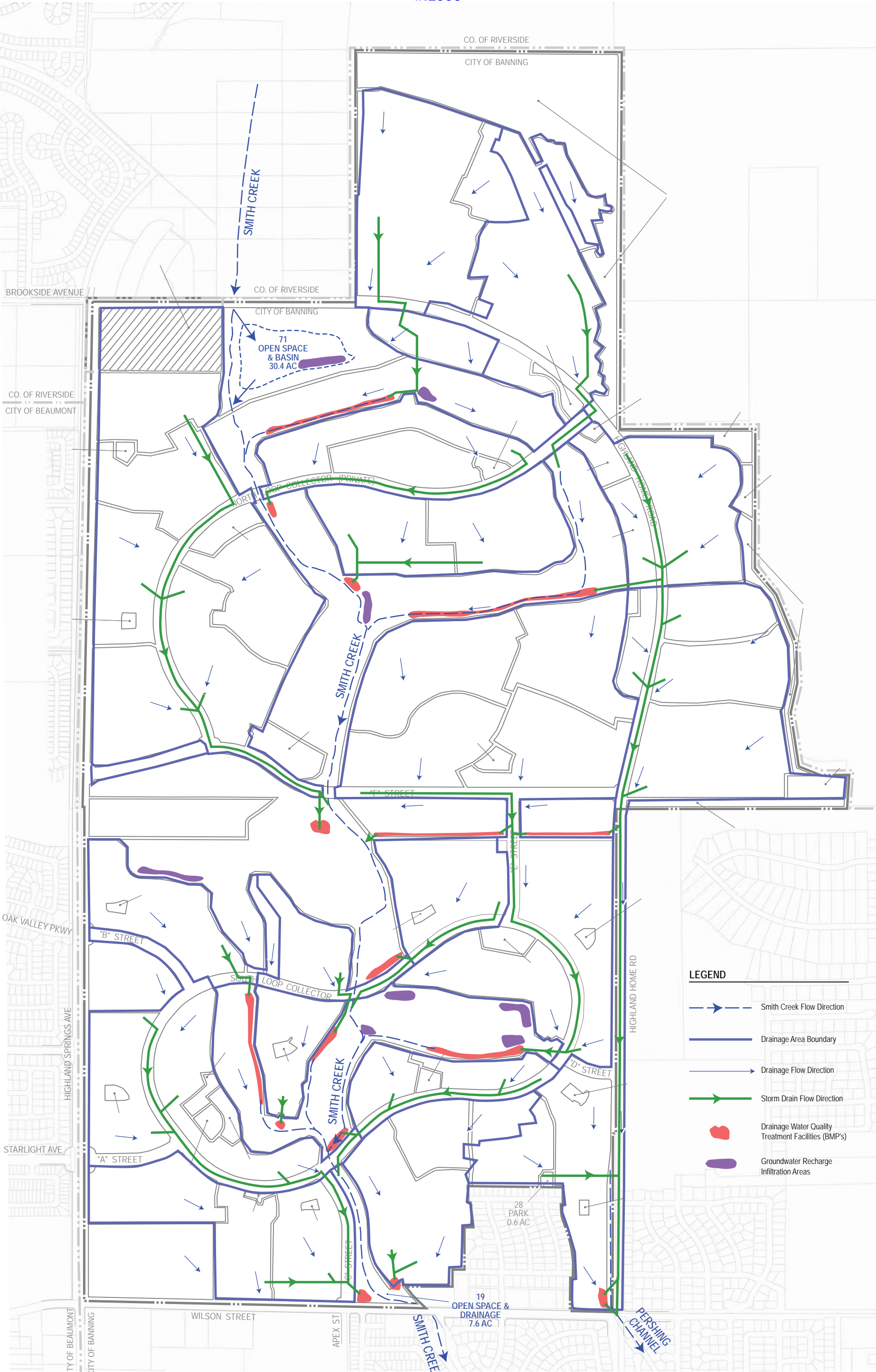
5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

High Pressure Gas Line Location

AR 003664
 EXHIBIT 3.0-6C

AR000268



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 3.7A)

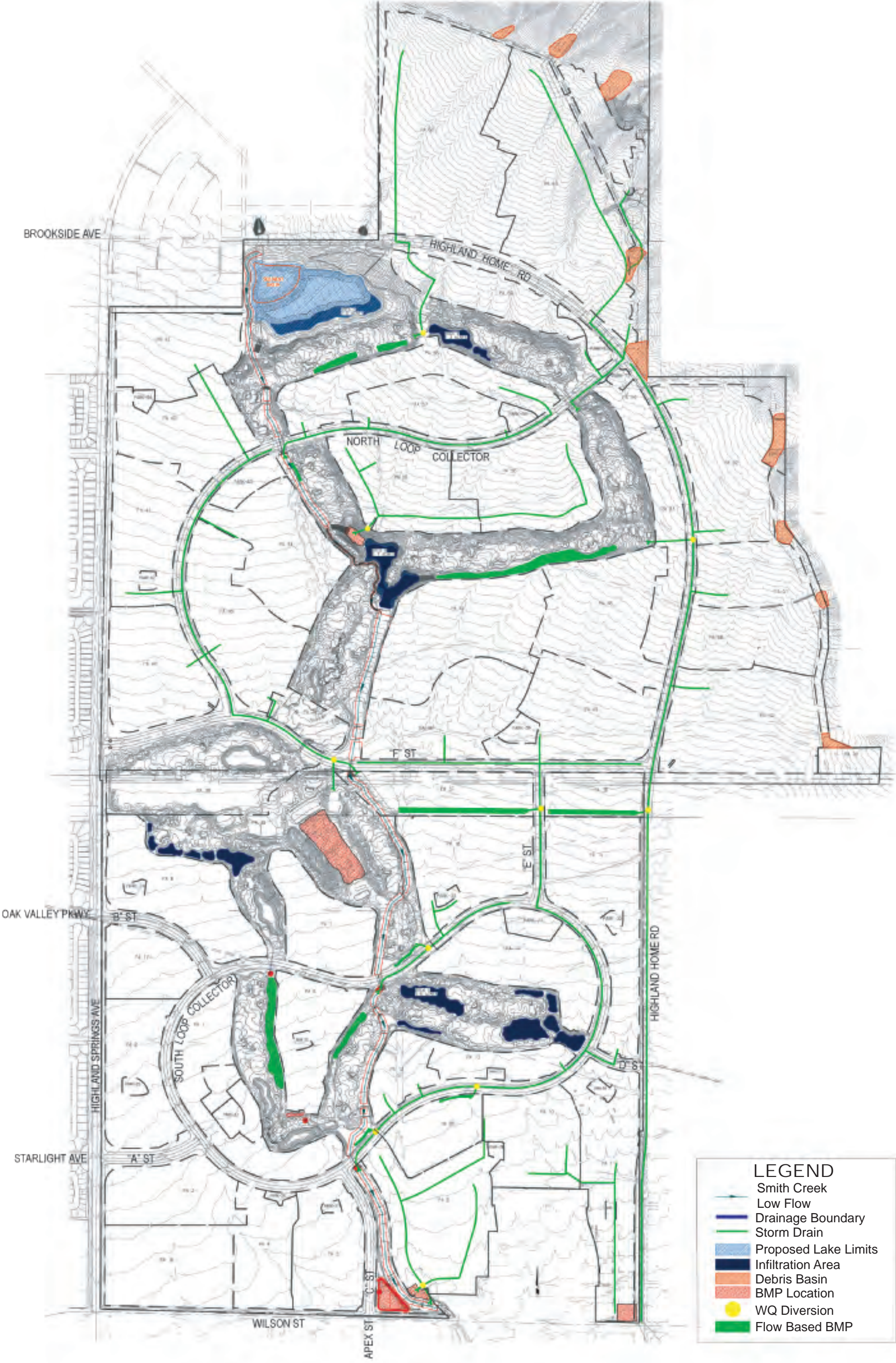


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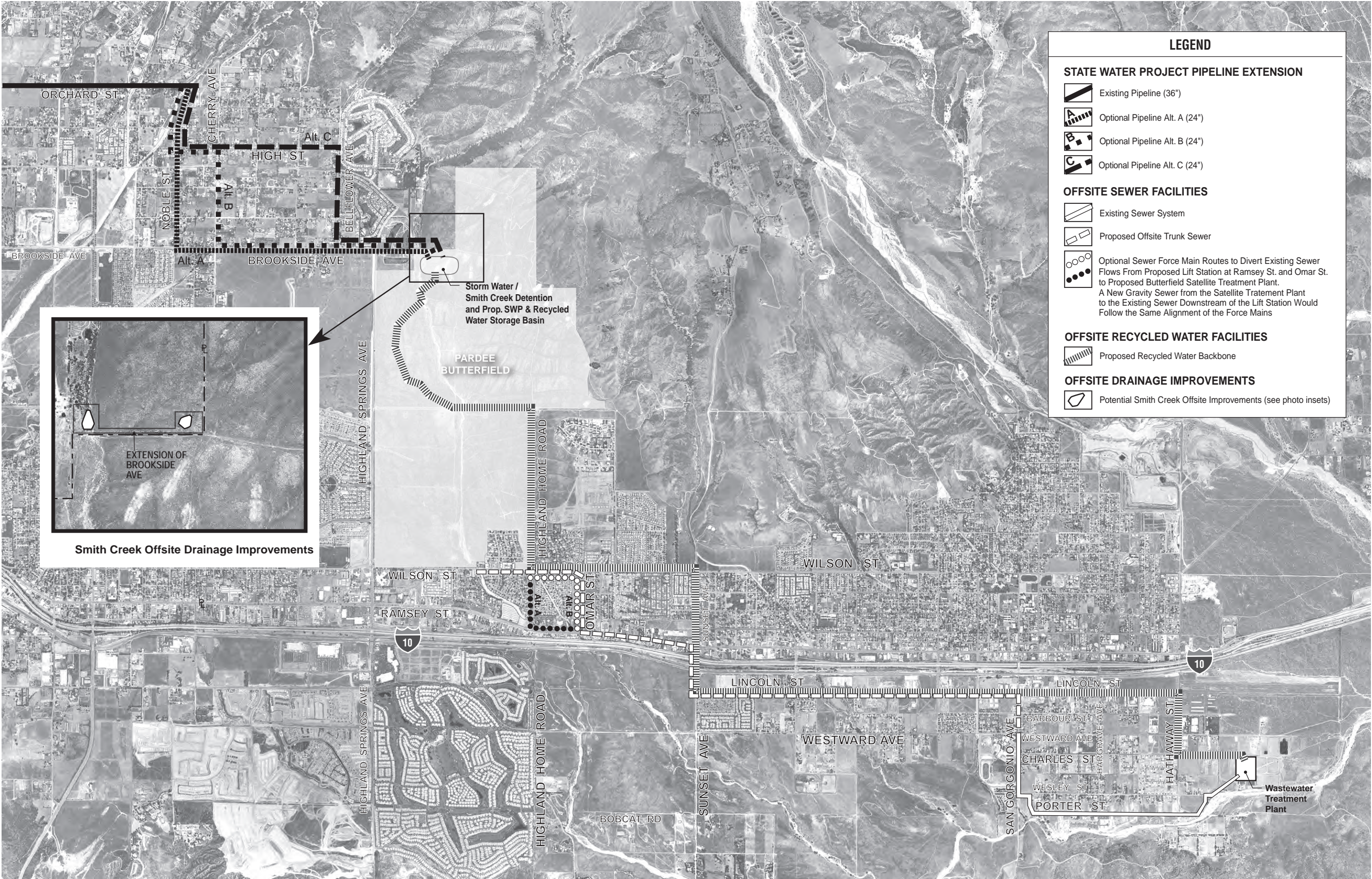
5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD EIR
Master Drainage Plan

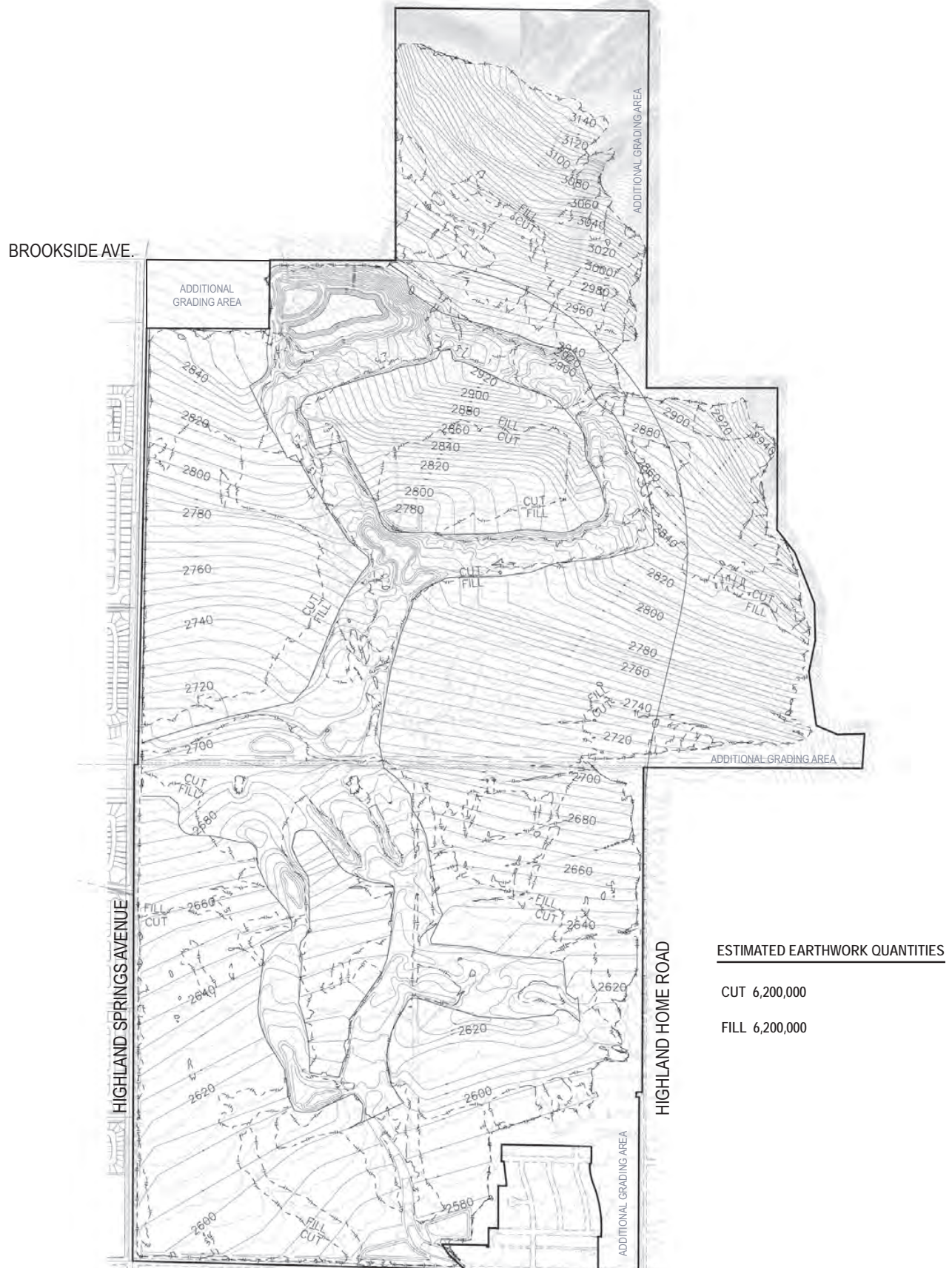
AR 003665
EXHIBIT 3.0-7



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibits 3.7A & 3.7C)



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibits 3.9B, 3.10A & 3.11B)
Google Earth Imagery (pre-2009), City of Banning Recycled Water Master Plan (2006)



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 3.5)



NOT TO SCALE

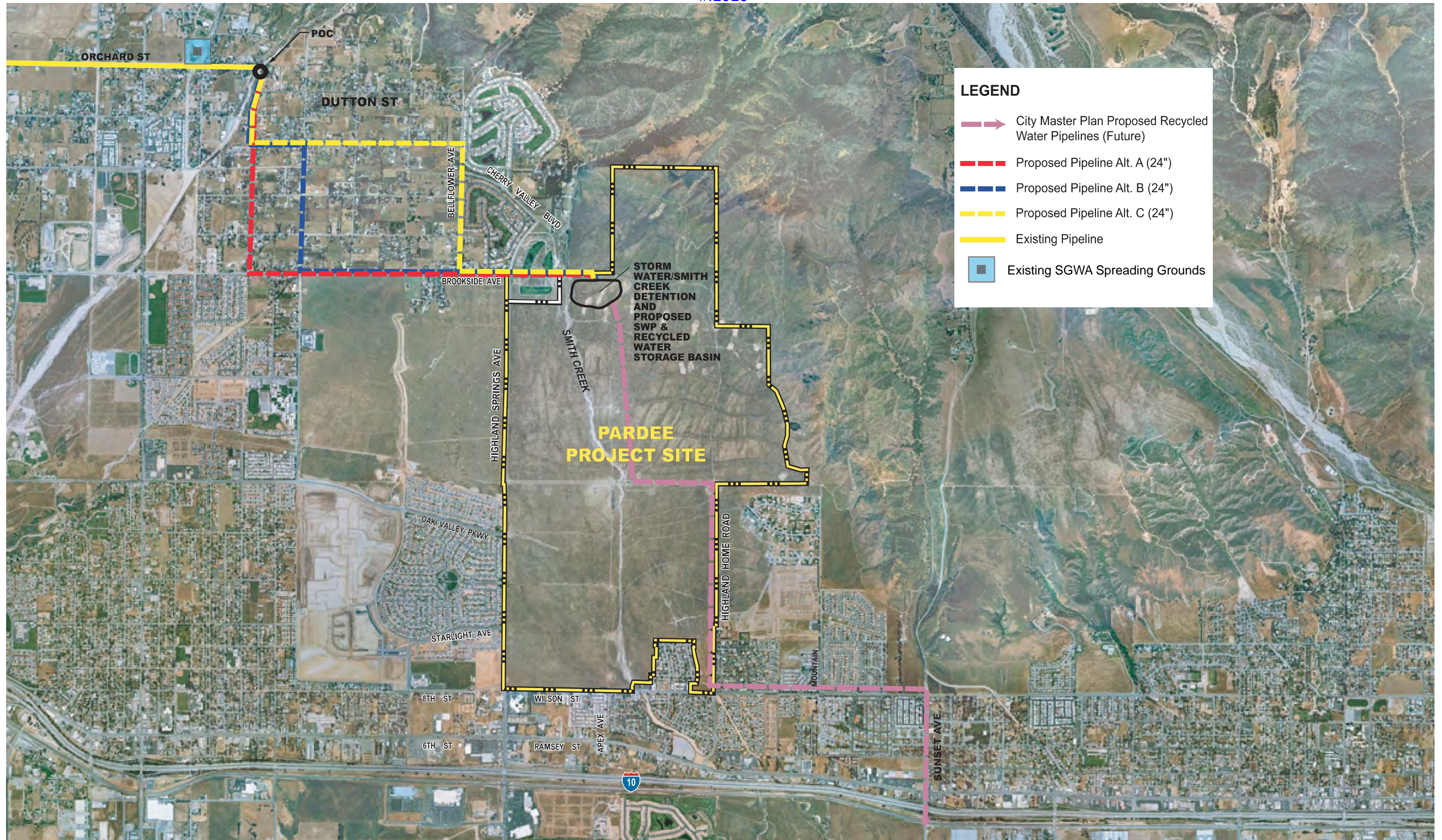
5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

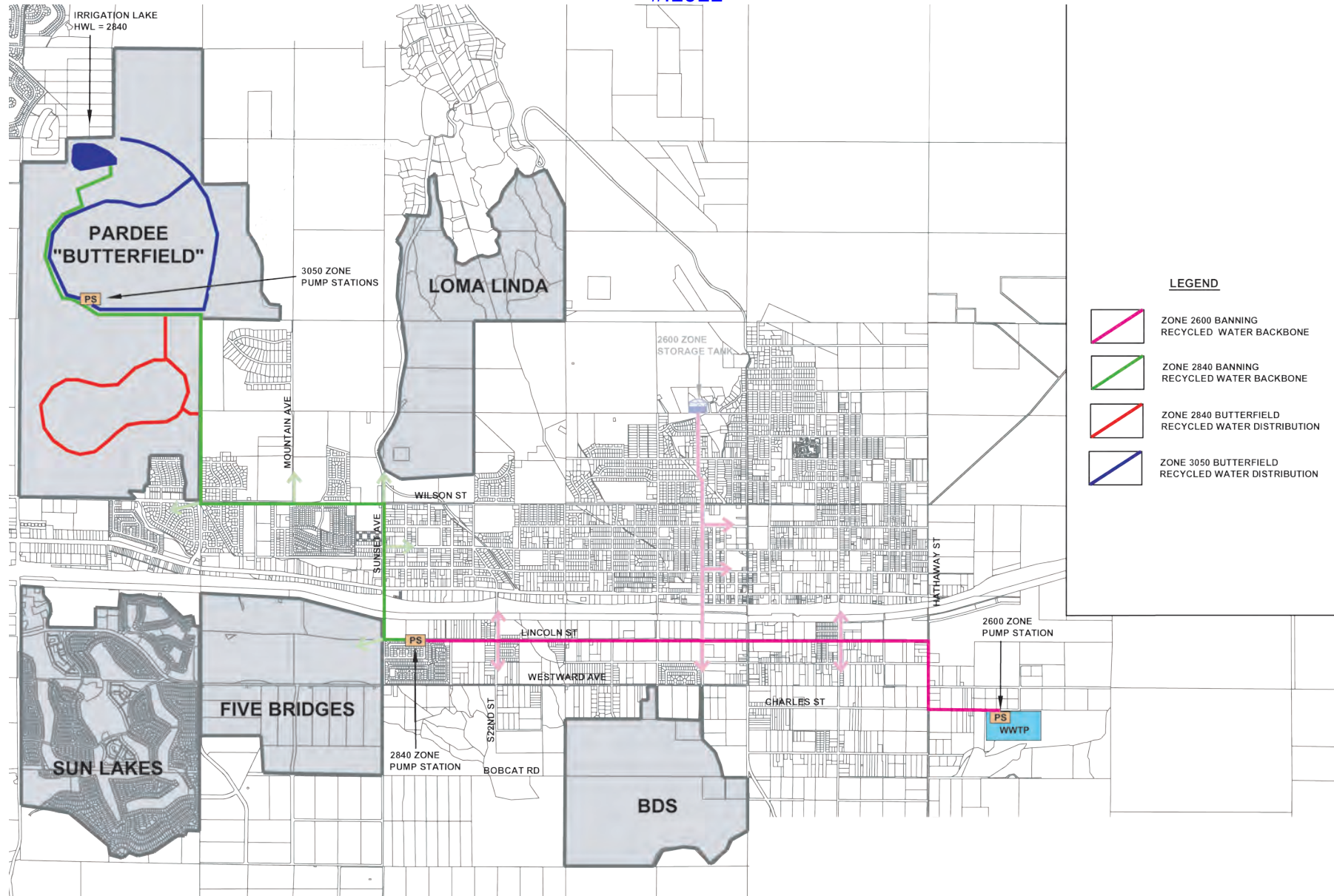
Conceptual Mass Grading Plan

AR 003668
EXHIBIT 3.0-10

AR000272



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 3.10A)
Google Earth Imagery (aerial photography date pre-2009)



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 3.9B)
Riverside County GIS Data (Parcel Information)
City of Banning Recycled Water Master Plan (2006)



NOT TO SCALE

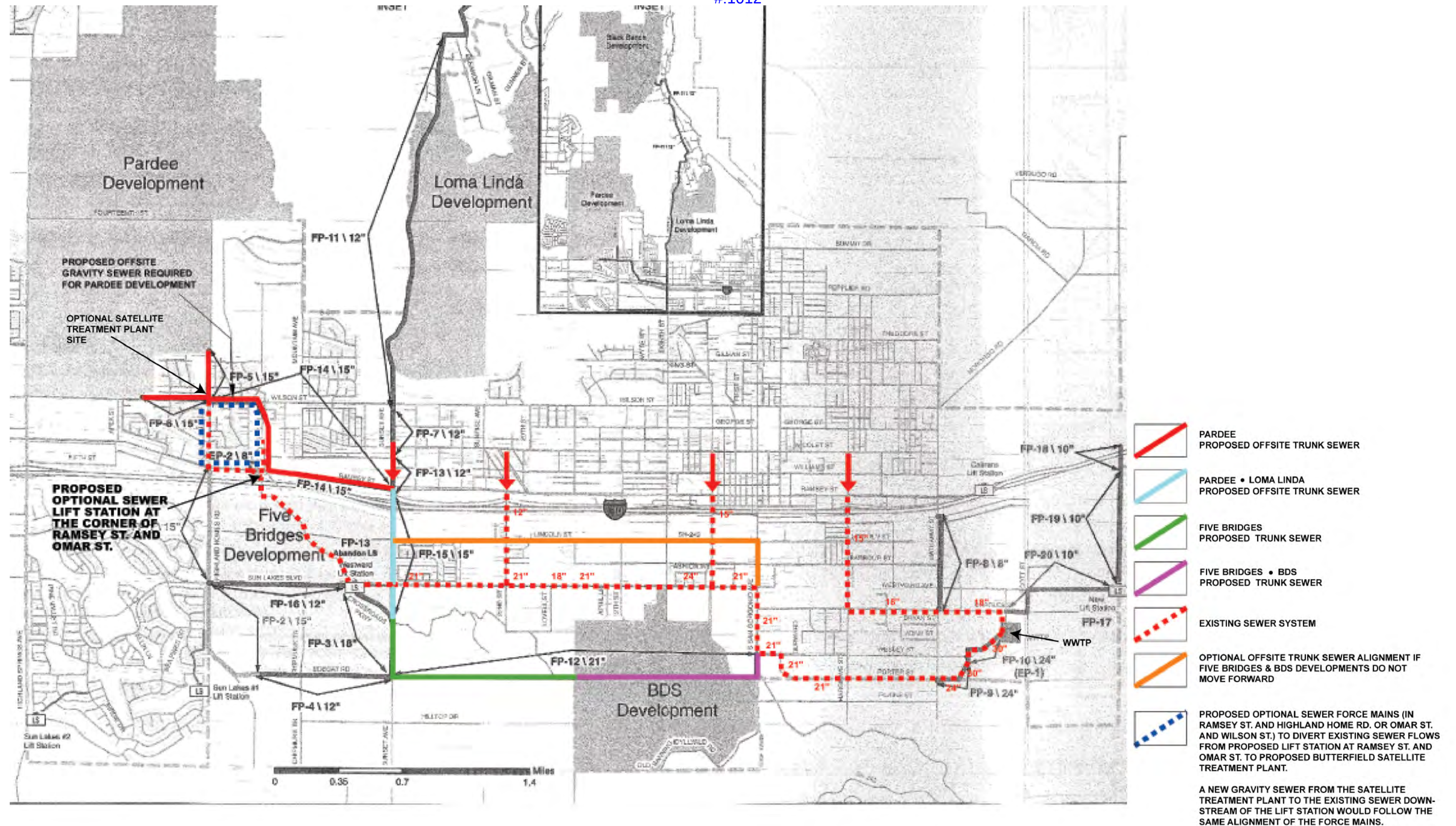
5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

Offsite Recycled Water

AR 003670
EXHIBIT 3.0-12

AR000274



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 3.11B)
City of Banning Sewer System Study (2006)

AR000276

SECTION 4.0

ENVIRONMENTAL ANALYSIS

The following subsections of the EIR contain a detailed environmental analysis of the existing conditions, Project impacts (including direct and indirect, short-term and long-term, and cumulative), recommended mitigation measures, and unavoidable adverse impacts that cannot be mitigated, where these are identified. This EIR analyzes those environmental issue areas identified in the Expanded Notice of Preparation (Appendix A, *Expanded NOP and Public Comments*) where potentially significant impacts could occur as a result of Project implementation, based on information gathered throughout the EIR process. The EIR examines the following environmental issue areas outlined in the CEQA Guidelines Appendix G, Environmental Checklist:

- Aesthetics, Light, and Glare (Section 4.1)
- Agricultural Resources (Section 4.2)
- Air Quality (Section 4.3)
- Biological Resources (Section 4.4)
- Climate Change (Section 4.5)
- Cultural and Historic Resources (Section 4.6)
- Geology, Soils, and Seismicity (Section 4.7)
- Hazards and Hazardous Materials (Section 4.8)
- Hydrology and Water Quality (Section 4.9)
- Land Use and Planning (Section 4.10)
- Noise (Section 4.11)
- Public Services and Utilities (Section 4.12)
- Transportation and Traffic (Section 4.13)
- Water Supply (Section 4.14)

Each environmental issue is addressed in a separate sub-section of Section 4.0 of the EIR, and is organized under the following headings:

Existing Conditions

“Existing Conditions” provides a description of the existing physical conditions on and in the vicinity of the Project site to provide a “baseline” condition against which Project-related impacts are compared. The baseline condition is generally the physical condition that exists when the NOP is published. The baseline for transportation/traffic, air quality, and noise is the date of the traffic counts, which occurred September 15, 2010. Data that are not sensitive to change, either because of the nature of the information (e.g., a resource that does not change

readily, such as geology, or general background information that is not date-sensitive, such as definitions or general descriptions of regulations) or because no changes have occurred (e.g., physical site conditions or site history) may also be used as background information, and may have a date prior to September 2007.

Regulatory Framework

The Regulatory Framework provides a summary of regulations, plans, policies, and laws that are relevant to each environmental issue area. The City's General Plan Goals and Policies and relevant sections of the City's Municipal Code are listed as appropriate in the individual technical sections. The laws, ordinances, and regulations cited in each section are current as of January 1, 2011.

Significance Threshold Criteria

"Significance Threshold Criteria" provides the thresholds that are the basis of conclusions of significance, which are primarily the criteria in the 2010 CEQA Guidelines Appendix G, Environmental Checklist.

Major sources used in crafting criteria include: the CEQA Guidelines; local, State, federal, or other standards applicable to an impact category; and officially established significance thresholds. Section 15064(b) of the Guidelines states that, "...an ironclad definition of significant effect is not possible because the significance of any activity may vary with the setting." Principally, "...a substantial, or potentially substantial adverse change in any of the physical conditions within an area affected by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic and aesthetic significance," constitutes a significant impact (CEQA Guidelines Section 15382).

Project Impacts

Project impacts are potential changes to the existing physical environment that could occur if the Project is implemented. Evidence, based on factual and scientific data, is presented to show the cause-and-effect relationship between the Project and the potential changes in the environment. The exact magnitude, duration, extent, frequency, range, or other parameters of a potential impact are ascertained, to the extent possible, to determine whether impacts could be significant; potential direct and reasonably foreseeable indirect effects are considered to the extent feasible.

The "Level of Significance" identifies the impact significance level with implementation of the Butterfield Specific Plan. Impacts are classified as follows:

- "No Impact" – This determination is made when, due either to the nature or the scope of the Project, no impact would occur.

- “Less than Significant” – This determination is made when the impact does not exceed the defined threshold(s) of significance or can be eliminated or reduced to a less than significant level through compliance with existing local, State, and/or federal laws and regulations and/or Project requirements and Project Design Features.
- “Less Than Significant with Mitigation” – This determination is made when a potentially significant impact can be reduced, avoided, or offset to a less than significant level by incorporating EIR mitigation measures.
- “Unavoidable Significant Impact” – This determination is made when a potentially significant impact exceeds the defined threshold(s) of compliance and either no mitigation is available or the recommended mitigation is not sufficient to reduce the impact to less than significant. This determination requires a Statement of Overriding Considerations (pursuant to *CEQA Guidelines* Section 15093), which would be adopted by the City of Banning prior to approving the Project. In adopting such a statement, the lead agency is required to balance the benefits of a project against its unavoidable environmental impacts in determining whether to approve the project. If the benefits of a project are found to outweigh the unavoidable adverse environmental effects, the adverse effects may be considered “acceptable” and the project approved (*CEQA Guidelines* Section 15093[a]).
- “Potentially Significant and Unavoidable Impact with Mitigation Incorporated” – Potentially significant and unavoidable impacts are impacts for which there is not enough information to draw a firm conclusion, whether that be for lack of scientific information regarding mitigation effectiveness or because further actions by applicable resource agencies are required in establishing significance thresholds. For the purpose of this EIR and out of an abundance of caution, potentially significant and unavoidable impacts are treated as significant impacts. Such impacts are equivalent to Unavoidable Significant Impacts and require the identification of feasible mitigation measures.

General Plan Mitigation Measures

“General Plan Mitigation Measures” are those measures identified in the General Plan EIR to mitigate impacts associated with buildout of the City’s Comprehensive General Plan. These have been incorporated into this EIR, where applicable.

Mitigation Measures

“Mitigation Measures” are those Project-specific measures that would be required of the Project to avoid a significant adverse impact; to minimize a significant adverse impact; to rectify a significant adverse impact by restoration; to reduce or eliminate a significant adverse impact

over time by preservation and maintenance operations; or to compensate for the impact by replacing or providing substitute resources or environment.¹

Cumulative Impacts

“Cumulative Impacts” describes potential environmental changes to the existing physical conditions that may occur with the Project together with all other reasonably foreseeable, planned, and approved future projects.

BASIS FOR CUMULATIVE IMPACT ANALYSIS

Section 15355 of the California Environmental Quality Act (CEQA) Guidelines defines cumulative impacts as:

“...two or more individual effects which when considered together are considerable or which compound or increase other environmental impacts.”

Section 15355 further describes potential cumulative impacts as follows:

- (a) *The individual effects may be changes resulting from a single project or a number of separate projects.*
- (b) *The cumulative impacts from several projects are the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.”*

Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity. Section 15355 of the Guidelines defines cumulative impacts to be, “ . . . two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed where they are significant. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great a level of detail as would be necessary for the project alone.

¹ The measures presented in this EIR are either “project design features” (those that would be implemented as part of project design) or mitigation measures (those that would mitigate project impacts above and beyond any reduction in impacts accomplished by project design features).

Section 15130(b)(1) of the Guidelines states that the information utilized in an analysis of cumulative impacts should come from one of two sources:

1. A list of past, present, and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency; or
2. A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impacts analyses contained in this Draft EIR uses a “blended approach” to ensure adequate analysis. Relative to the “list method”, Table 4-1, *Cumulative Projects*, provides a list of known major development projects in the City of Banning and adjacent areas, including the City of Beaumont and unincorporated County of Riverside². This list of projects has been used to provide general context for overall cumulative conditions, noting that the actual density, timing and nature of these projects is uncertain given the long build-out timeframe for the Butterfield Specific Plan (2042). Also, refer to Exhibit 4-1, *Surrounding Development*, which shows major land development projects in the Project area.³

Relative to the “adopted plan” method, the proposed Project is an amendment and restatement of the Deutsch Specific Plan, approved in 1993 and the proposed General Plan amendment does not result in a substantive change in the overall density or nature compared to the previously approved development. The Deutsch Specific Plan was included in the projects considered by the City’s Comprehensive General Plan. Accordingly, the proposed Project is considered to be generally consistent with the City of Banning General Plan, and the Project’s overall density and nature of development would be consistent with regional growth projections reflected in the Riverside County General Plan and those of applicable regional, State and federal agencies. Therefore, on both a local and regional level, the Project’s cumulative impacts have been accounted for in the City of Banning General Plan Final EIR (2006), and the Riverside County Integrated Project Final EIR (2003) as well as in the various population-dependent regional plans adopted by such agencies as the Southern California Association of Governments (SCAG), the Colorado River Basin RWQCB, and the South Coast AQMD.

In addition to the “list” and “adopted plan” methods noted above, the cumulative analysis for individual topical issues may consider specific cumulative study areas designated by respective agencies for regional or area-wide conditions and/or specific projects. Certain topics are most appropriately addressed at the local level, while with other topics it is appropriate to consider regional, State and/or national-scale implications. For example, a topic-specific cumulative

² The list of cumulative projects was derived by contacting the Planning Departments of the City of Banning (July 20, 21 and 26 2010 and City website October 2010), City of Beaumont (July 19, 2010), and County of Riverside (July 22, 2010), as well as by checking for recent CEQA documents filed with the State Clearinghouse (accessed July 22, 2010) by other agencies for projects in Banning and Beaumont.

³ Note that these projects are in various stages of entitlement or construction. Not all may be built, and it is highly unlikely that they will all be development at their current or requested development density.

study area was developed for cumulative traffic impacts that focuses on Banning, Beaumont, and local freeway segments consistent with Riverside County TIA guidelines and as approved by the City of Banning, while biological resources primarily focuses on the City of Banning and the Western Riverside MSHCP. Water supply considers local groundwater basins, with more general discussion of State-wide water conditions, and air quality addresses the South Coast Air Basin, with discussion, where relevant, of State-wide and global conditions related to climate change.

Table 4.0-1
City of Banning Current Large Development Projects⁴

Project	Status	Number of DU's
Loma Linda Specific Plan	Approved Specific Plan and EIR Project on hold	944
Fiesta Development (Property Ownership subject to change) (TTM No. 30906)	Approved Tentative Tract Map- on-hold (subject to expiration)	303
C.W. Tefft (Property Ownership subject to change) (TTM No. 31924)	Approved Tentative Tract Map- on-hold (subject to expiration)	478
St. Boniface/Gilman Project (TTM No. 33540)	Approved	172
O'Donnell Industrial Park	Approved	1.2 million sq. ft.
San Gorgonio Memorial Hospital- Expansion	Under Construction	24.24 acres
Total Current Project Dwelling (Housing) Units		1,897

⁴ City of Banning, Draft 2010 *Urban Water Management Plan*, May 2011, Table 2-4.

BUTTERFIELD SPECIFIC PLAN
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4.0 ENVIRONMENTAL ANALYSIS

Beaumont Major Project Status ⁴						
Project Name	Location	Total AC	Res. AC	Com/Ind AC	No. D.U.	Project Status
<i>Projects under development:</i>						
Seneca Springs	W/ Manzanita and S/ 1 st St.	295.1	224.9	13.7	955	Specific Plan, homes under construction
Tract No. 30891, Shadow Creek	N/San Timoteo Canyon Rd; S/1-10	72.5	68.7	-	241	Homes under construction
Tract No. 30748, 31288, Tourname nt Hills	Southwesterly of Desert Lawn Dr. & Champions Dr. and N/San Timoteo Canyon Road	263	239.9	-	1094	Tract 30748 under construction. Tract 31288, Amendment to Oak Valley SP and EIR Adden.
Sundance	N/8 th St.; W/Highland Springs Ave.	1162	905	15	4716	Project under development
Fairway Canyon SCPGA, Tract No. 31462	N/ San Timoteo Canyon Rd.; SW/I-10	1555.7	678	46.4	3566	Project under development

⁴ Obtained from Ceqanet Database Query <http://www.ceqanet.ca.gov/QueryForm.asp> , Accessed on July 22, 2010.

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4.0 ENVIRONMENTAL ANALYSIS

Beaumont Major Project Status ⁴						
Project Name	Location	Total AC	Res. AC	Com/Ind AC	No. D.U.	Project Status
Tract No. 31426, Aspen Creek	E/Manzanita Park Rd.; N/First St.	30.87	30.87	-	106	Homes under construction
Heartland	N/SR 60; W/Portero Blvd.	417.2	207.6	61.8	922	Now Grading
Four Seasons	S/I-10; W/Highland Springs Ave.	570.6	423.7	8.8	2041	Homes under construction
Rolling Hills Ranch Industrial/Prolo gis	S/SR 60; W/Viele Ave.	155	-	155	-	Prelim. Grading
Oak Valley Plaza	Northeast corner of Oak Valley Parkway & Golf Club Dr.	14.86	-	14.86	-	Phase 1 built out, Phase 2 under construction

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4.0 ENVIRONMENTAL ANALYSIS

Beaumont Major Project Status ⁴						
Project Name	Location	Total AC	Res. AC	Com/Ind AC	No. D.U.	Project Status
<i>Projects not under development:</i>						
Dowling Orchard Business Park	NW corner of 4 th St. and Nicholas Rd.	26.34	-	26.34	-	Phase 2 Pending
Kirkwood Ranch	N/I-10; S/Oak Valley Parkway	128	128	-	403	SP (1991) TTM 27357 Approved.
Tract No. 31162, Taurek	S/Fourth St.; W/Viele Ave.; outside Beaumont city limits	130	130	-	244	TTM submitted; Annexation, Map and EIR Pending Public Hearing
Potrero Creek Estates	S/ I-10; W/ Highland Springs Ave.	737.1	307.8	-	700	SP (1989)
Tract No. 32850	E/Manzanita Park Rd.; N/First St.	29.09	29.09	-	95	Tract 32850 Approved.
Noble Creek Vistas	N/14 th St.; W/Beaumont Ave.	332.28	222.5	-	648	SP/Annex Approved

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4.0 ENVIRONMENTAL ANALYSIS

Beaumont Major Project Status ⁴						
Project Name	Location	Total AC	Res. AC	Com/Ind AC	No. D.U.	Project Status
Jack Rabbit Trail	S/SR 60; W/Jack Rabbit Trail	542	402	4.5	2000	SP/Annexation Pending
The Preserve/Legacy Highlands SP	S/SR 60; W/Jack Rabbit Trail	1600	730	100	3412	SP Approved/ Annexation Pending
Hidden Canyon (Tracts Nos. 31843, 32747)	Southeast corner of SR 60 and Jack Rabbit Trail	196.5	160	-	411	Annexation Approved TM and PM approved
Sunny-Cal SP	North of Brookside and west of I-10	324	216.05	10.08	571	SP/Annex. Pending
American Villas	693 W. American Ave.	2.3	2.3	-	36	Plot Plan approved
Sundance Corporate Center	NWC of Highland Springs and 8 th	13.6	-	13.6	-	Plot Plan approved
Beaumont Commons	Xenia between 6 th and 8 th St.	4.14	4.14	-	120	06-PP-16 Plot Plan approved, Affordable housing

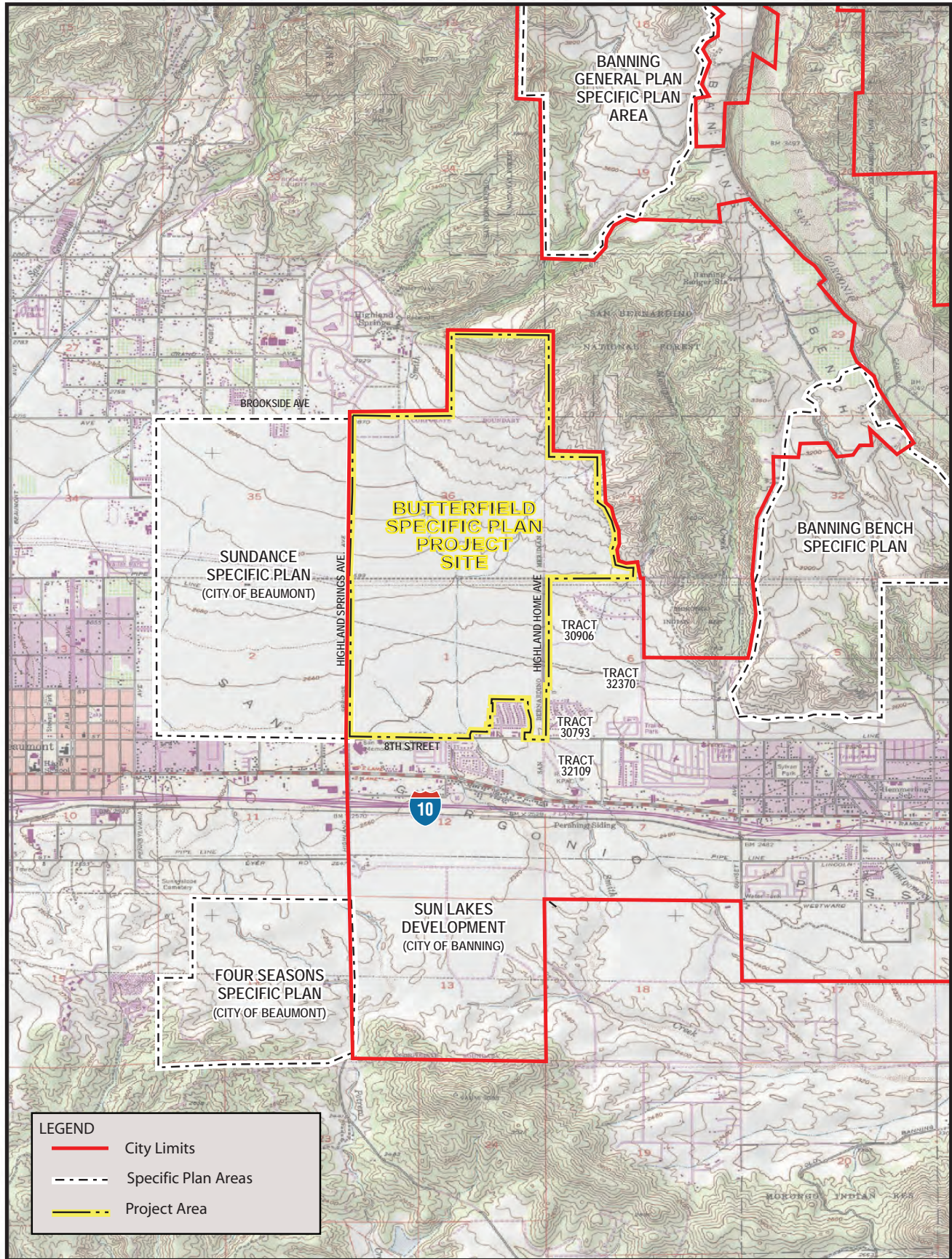
BUTTERFIELD SPECIFIC PLAN
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4.0 ENVIRONMENTAL ANALYSIS

Beaumont Major Project Status ⁴						
Project Name	Location	Total AC	Res. AC	Com/Ind AC	No. D.U.	Project Status
Tuscany Townhomes 35142	Xenia and 8 th St.	10.90	10.9	-	188	06-PP-14 Plot Plan approved
Oak Valley Village	Oak Valley Pkwy and E/I-10	38.17	-	38.17	-	Plot Plan Approved (05-PP-04)
Beaumont Wastewater Treatment Plant Expansion Project ⁵	4 th Street in the heavy industrial area of the city of Beaumont	33	-	-	-	NOP submitted as of 4/25/2010
Beaumont High School Expansion Project ⁶	Beaumont High School 1591 Cherry Avenue	38	-	-	-	MND submitted as of 2/18/2010

⁵ Obtained from Ceqanet Database Query <http://www.ceqanet.ca.gov/QueryForm.asp> , Accessed on July 22, 2010

⁶ Obtained from Ceqanet Database Query <http://www.ceqanet.ca.gov/QueryForm.asp> , Accessed on July 22, 2010



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 2.1)

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR



5/27/11 JN: 65-100290

Surrounding Development

AR 003685

EXHIBIT 4.0-1

AR000289

SECTION 4.1

AESTHETICS, LIGHT AND GLARE

4.1.1 INTRODUCTION

The purpose of this section is to provide analysis and identification of aesthetic resources on the Project site and in the Project vicinity. Potential Project-related impacts have been analyzed and mitigation measures have been incorporated to reduce potential aesthetic impacts, where possible. Aesthetic and visual resource information included in this section has been compiled from aerial photographs, ground-level photographs of the site and surrounding areas, and site surveys conducted by RBF Consulting personnel in April 2007 and September 18, 2010, as well as the *City of Banning Comprehensive General Plan* (January 2006) and the *City of Banning Comprehensive General Plan EIR*, prepared by Terra Nova Planning & Research, Inc. (June 2005), and the Draft Butterfield Specific Plan and its technical appendices.

4.1.2 EXISTING CONDITIONS

4.1.2.1 ENVIRONMENTAL SETTING

Regional Setting

The City of Banning is located in the San Gorgonio Pass area of Riverside County, which divides the San Bernardino Mountains to the north and the San Jacinto Mountains to the south. The San Gorgonio Pass, created by the San Andreas Fault, is one of the deepest mountain passes in the continental United States, with mountains rising nearly 9,000 feet on both sides. The northern portion of the pass is comprised of the San Bernardino Mountains and, most notably, San Gorgonio Peak. San Gorgonio Peak is 11,485 feet above mean sea level (amsl) and is the highest peak in Southern California. The southern portion of the Pass area is comprised of the San Jacinto Mountains; San Jacinto Peak, just 6 miles south of I-10, rises to 10,831 feet amsl and is the highest peak in Riverside County. Together, these features help form one of the most visually striking regional settings in southern California.

Existing Project Setting

The Butterfield Specific Plan Project site is comprised of approximately 1,543 acres. The site can be characterized as predominantly disturbed open space immediately abutting the City of Banning's northern and western development edges and City of Beaumont's eastern development edge. The topography ranges from relatively flat to steep foothill terrain and elevation ranges from 2,560 feet amsl to 3,400 feet amsl at its highest point. The site elevation gradually increases over approximately three quarters of the site before rising quickly to its highest elevations at its northern and northeastern extents. The majority of the site contains highly disturbed grassland. The site is bisected in an east/west direction by two Southern California Edison (SCE) easements, with a combined width of 400+ feet, occupied by metal and wood transmission towers, circuit wires and a dirt access road.

The dominant scenic vista associated with the site is of the peaks and prominent ridgelines of the San Bernardino Mountains, although the prominence of the foothills increases as site elevation increases and moves to the foreground and, in the northern portion of the site, obscures much of the San Bernardino Mountain backdrop. In its undeveloped state, the site provides panoramic views of the San Bernardino Mountains and its foothills to the north and northeast from Wilson Street and from Highland Springs Avenue. Scenic vistas of Mt. San Jacinto to the southeast are also available from Highland Springs Avenue and from the higher on-site elevations. These prominent ridgelines form the visual backdrop not only of the site, but of the City of Banning, and are identified in the City's General Plan as the City's most significant visual feature(s).

Wilson Street marks the southern boundary of the Project site. For much of its length through the cities of Banning and Beaumont, the street is characterized by urban/suburban development, punctuated at intervals with remnants of windrows immediately adjacent to the right-of-way. In the immediate vicinity of the Project, existing development lines the entire south side of the street and most of the north side.

There is a single oak tree along the northwestern edge of the Project site, north of PA 40 along Highland Springs Avenue, which is a visually prominent foreground feature and the site of an informal veteran's memorial (refer to photo #4 in Exhibit 4.1-1A, *Onsite Photographs 1 thru 4*). Development on the south side of Wilson Street intermittently blocks views of the site from east and westbound traffic.

To the east of the Project site is Highland Home Road, which is partially improved for a portion of its right-of-way north of Wilson Street. Older residences have frontage on the partially improved street. A concrete lined drainage ditch (Pershing Channel) runs along the eastern boundary of the site adjacent to the improved Highland Home Road right-of-way. North of the improved section of Highland Home, the Project site is vacant and characterized by gradually increasing elevations melding grassland into foothill terrain. Non-native grasslands characterize the area with the exception of the highest elevations, which exhibit mixed chaparral vegetation.

The site's most prominent geologic features are the foothills that rise abruptly from the adjacent tableland. Those portions of the foothills visible from offsite are grass covered and highly eroded with a clearly demarked line of mixed chaparral at the highest elevations.

The higher elevations of the Project site are briefly and intermittently visible to passing traffic traveling east on the I-10 as part of the general mid-distance background, but the site is not visible from west-bound lanes, where the entire area is obscured by berms and vegetation. Although the County RCIP Circulation Element and Caltrans identify the Pass area I-10 corridor as "eligible" for State scenic highway status, the City's General Plan EIR notes that visual sensitivity along the I-10 corridor as it traverses the City of Banning is very low, with the

exception of distant views of the surrounding mountains. The Project site is not located within a designated scenic highway corridor and its development is not governed by an adopted Corridor Protection Plan.

Offsite Facilities Settings

Development of the proposed Project will include the construction of offsite infrastructure improvements including drainage, water, wastewater, and recycled water conveyance facilities (pipelines, and pump stations), which would be constructed in and around the City. Offsite facilities are described in Sections 3, 4, and 5 of the Specific Plan, *Offsite Project Facilities*. The precise alignments for these offsite pipelines has not been determined; however, all would be located within paved roadway right-of-way (refer to Section 3.0, *Project Description*). The proposed offsite water pipelines would be constructed in a rural residential area of unincorporated Riverside County to the northwest of the Project site. Recycled water and sewer pipelines would be constructed through both commercial and residential areas located southeast of the Project site and would convey wastewater to, and treated recycled water from, the City's Wastewater Treatment Plant at 2242 East Charles Street. Drainage improvements are also proposed within the Smith Creek channel to the immediate north and south of the site, where Smith Creek exists as a sparsely vegetated soft-bottom channel. With the exception of the Smith Creek drainage, offsite facilities would be located underground and would have no lasting impact on scenic vistas or the visual character of the areas they traverse.

Light and Glare Setting

In its undeveloped condition, the Project site does not generate light or glare; however, within the immediate vicinity of the Project site nighttime illumination is currently generated by the surrounding roadway systems, including Highland Springs Avenue, Wilson Street, and Highland Home Road, and by surrounding land uses consisting of residential development (including the adjacent Sundance Specific Plan project west of Highland Springs Avenue), strip commercial uses, and a hospital located at the intersection of Wilson Avenue and Highland Springs Avenue. Existing sources of light in the immediate vicinity include streetlights, parking lot pole lighting, interior illumination from homes, business signage (both illuminated and backlit), security lighting for businesses and the hospital, and vehicle headlights.

Glare can be defined as the contrast lowering effect of stray light in a visual scene. Glare forms a veil of luminance which reduces the contrast and thus the visibility. Building materials used in the immediate vicinity of the project are non-reflective and are not sources of daytime glare. Nighttime sources of glare include high beam headlights on passing vehicles. Stationary lighting, including signage, parking lot, and security lighting, does not produce glare in the nighttime setting as the sources would be shielded to prevent light spillage pursuant to City code.

4.1.2.2 REGULATORY FRAMEWORK

California Department of Transportation State Scenic Highways Program

The California Department of Transportation (Caltrans) State Scenic Highway Program was established by State legislation (Senate Bill 1467) in 1963 to help communities protect and enhance their natural and cultural uniqueness and beauty. Riverside County participates in the California Scenic Highways Program and has developed a County Scenic Highways Program. These programs seek to identify, protect, and enhance scenic resources. According to Caltrans, “a highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler’s enjoyment of the view.”¹ Caltrans defines a State scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality, containing striking views, flora, geology, or other unique natural attributes. I-10 between SR 38 and SR 62 is an “Eligible” State scenic highway.

To be designated as “eligible” for State scenic highway status, this section of I-10 needed to meet the following criteria:

- a) Consists of a scenic corridor that is comprised of a memorable landscape that showcases the natural scenic beauty or agriculture of California;
- b) Existing visual intrusions do not significantly impact the scenic corridor;
- c) Demonstration of strong local support for the proposed scenic highway designation; and
- d) The length of the proposed scenic highway is not less than a mile and is not segmented.

When a city or county nominates an eligible scenic highway for official designation, it must identify and define the *scenic corridor* of the highway. Scenic corridors consist of land that is visible from the highway right of way, and is comprised primarily of scenic and natural features. Topography, vegetation, viewing distance, and/or jurisdictional lines determine the corridor boundaries. The city or county must also adopt ordinances, zoning and/or planning policies designed to preserve the scenic quality of the corridor or document that such regulations already exist in various portions of local codes. These ordinances and/or policies make up the official “Corridor Protection Program.” The status of a proposed State scenic highway changes from “eligible” to “officially designated” only *after* the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated State scenic highway.² Neither the County of Riverside nor the City of Banning has adopted a Corridor Protection Program for the section of I-10 that traverses the Cities of Banning and Beaumont and, though eligible for designation, this section of I-10 is not an officially designated State scenic highway.

¹ www.dot.ca.gov/hq/LandArch/scenic/, accessed on November 26, 2007.

² <http://www.dot.ca.gov/hq/LandArch/scenic/faq.htm>, accessed on July 12, 2010.

State Route 243 through the San Jacinto Mountains traverses a portion of the City of Banning along San Gorgonio Boulevard south of I-10, terminating at Lincoln Street. The project site is visible in the distant background from the designated scenic reaches of SR 243.

County of Riverside General Plan

The Pass Area Plan of the County of Riverside General Plan Circulation Element identifies I-10 between State Route 38 to State Route 62 as an “eligible” State scenic highway, consistent with Caltrans’ designation cited above. The overall intent of the County RCIP is to “conserve significant scenic resources along designated scenic highways for future generations and to manage development along scenic highways and corridors so as not to detract from the area’s scenic quality.” However, as noted above, a Corridor Protection Plan for I-10 in the vicinity of the Project site has not been adopted by either the County of Riverside or the City of Banning.

City of Banning Comprehensive General Plan

The *City of Banning Comprehensive General Plan (General Plan)* Open Space Element identifies the peaks and ridgelines of the San Bernardino Mountains and San Jacinto Mountains within the City and the surrounding area, and the overall visual quality of the Pass area as visual resources that shall be protected. The General Plan, however, does not identify any site-specific scenic vistas, nor does it include the development of a Corridor Protection Plan for I-10 as a Goal or Policy for the City. The Land Use Element includes goals and policies related to open space and conservation as well as aesthetics. Goals and policies of the Land Use Element that are relevant to the proposed Project include:

- **Goal 1:** The conservation and management of open space areas to provide recreational opportunities and protect important resources in perpetuity.
- **Policy 3:** The City of Banning shall protect the peaks and ridgelines within the City, and encourage coordination with adjacent jurisdictions to protect the peaks and ridgelines within the City’s area of influence, to protect the historic visual quality of the hillside areas and natural features of the Pass area.

In addition, the General Plan EIR imposes specific mitigation measures, most of which have been incorporated into the City’s *Municipal Code*. Where applicable, the chapter of the *Municipal Code* that implements the General Plan mitigation measure is cited.

Visual Resources Mitigation Measure A.

The City shall assure that development projects in the private and public sectors comply with community design standards, the General Plan, and the Zoning Ordinance, which will enhance the City’s distinctive visual character by protecting scenic resources (*Visual Resources Mitigation Measure A incorporated into the Municipal Code as Chapter 17.24 (Development Standards); Chapter 17.32 (Landscape Standards) and Chapter 17.20 (Open Space Districts)*)).

Visual Resources Mitigation Measure B

Development projects shall incorporate landscape designs and materials that complement the native desert environment, and the City shall require site-sensitive designs to provide a linkage between the natural and man-made environments (*Visual Resources Mitigation Measure B incorporated into Municipal Code as Chapter 17.32 (Landscape Standards)*).

Visual Resources Mitigation Measure C

Overhead utility lines shall be undergrounded to greatest extent possible. (*Visual Resources Mitigation Measure C incorporated into the Municipal Code as Chapter 13.28 (Underground Utility Districts); and Chapter 17.24 (Development Standards Undergrounding Utilities)*).

Visual Resources Mitigation Measure D

Utility infrastructure, including wells, substations, and switching stations, shall be effectively screened to preserve scenic viewsheds and limit visual clutter (*Visual Resources Mitigation Measure D incorporated into the Municipal Code as part of Chapter 17.32 (Landscape Standards)*).

Visual Resources Mitigation Measure E

Outdoor lighting shall be limited to the minimum height, number of fixtures, and intensity needed to provide sufficient security and identification in each development, making every reasonable effort to protect the City's night skies. Commercial and mixed-use development shall be designed with particular attention to limiting the lighting impacts on adjacent residential neighborhoods (*Visual Resources Mitigation Measure E incorporated into the Municipal Code as Chapter 17.24.100 (Lighting)*).

Visual Resources Mitigation Measure F

Signage shall be limited to the locations, sizes, and maintenance requirements necessary to provide functional identification (*Visual Resources Mitigation Measure F – incorporated into the Municipal Code as Chapter 17.40 (Signage)*).

Visual Resources Mitigation Measure G

Commercial and mixed-use development projects shall incorporate safe, convenient vehicular and pedestrian circulation, screened outdoor storage/loading and other unsightly areas, protected and enhanced outdoor seating areas, appropriate lighting levels, limited signage, and landscaping designs that preserve and enhance visual resources (*Visual Resources Mitigation Measure G incorporated into the Municipal Code as Chapter 16.24 (Design Standard); Chapter 17.40 (Signage); Chapter 17.24.100 (Lighting) and Chapter 17.32 (Landscape Standards)*).

Visual Resources Mitigation Measure H

All grading and development proposed within scenic viewsheds, including hillsides, shall be regulated to minimize adverse impacts to these viewsheds (*Visual Resources Mitigation Measure H- Incorporated into the Municipal Code as Chapter 17.20 (Open Space Districts); Chapter 17.04 (Basic Provisions – Definition of View Corridor or Viewshed)*).

City of Banning Municipal Code

Title 17 – Zoning Code. As noted above, the *City of Banning Municipal Code* includes several provisions related to aesthetics, light and glare. Most of these provisions are contained in Title 17 (Zoning) of the Code and include the following:

- **Chapter 17.08.240 – Site Planning.** Planning guidelines are intended to create highly functional neighborhoods, and visual variety along local streets. The guidelines encourage the incorporation of natural elements such as hills, mature trees, and streams into the fabric of residential neighborhoods. These guidelines intend to encourage (1) varied footprints; (2) varied setbacks, (3) varied placement of houses on adjacent lots; (4) slowing vehicular traffic; (5) preservation of the natural landforms; (6) prevention of stark, unbroken walls. This section also requires feasible efforts to preserve views of all natural elements of the landscape including ridgelines, hills, lakes, wetlands, streams, trees, shrubs, and wildlife habitat. In addition, the Chapter requires development to relate to the natural surroundings and further requires the use of contour grading that follows natural contours in hillside areas.
- **Chapter 17.24.100 – Lighting.** Lighting shall not be permitted which blinks, flashes, or is of unusually high intensity or brightness. Exterior lighting shall be shielded or recessed so that light is contained within the boundaries of the parcel on which the lighting is located. All lighting shall be directed downward and away from adjoining properties and public rights-of-way.
- **Chapter 17.24.080 – Fences, walls, and hedges.** Only decorative block or stucco walls and wrought iron shall be permitted around the perimeter of subdivisions or planned communities. Wood fencing is prohibited. Fences, walls, and hedges shall not exceed six feet in height, unless required by any law or regulation of the city, the State of California, federal government, or agency thereof. Fences, walls and hedges located in the front yard setback shall not exceed forty-eight inches in height in any district. Barbed wire, electrified fences or razor wire fences are prohibited in any district unless required by any law or regulation of the city, the State of California, federal government, or agency thereof. Chain link fences are prohibited in all districts except the R/A, R/A/H, RR, RR/H if approved by the director. Agricultural and equestrian uses may use electrical fences if approved by the director.

Decorative masonry walls, including, but not limited to, slump stone and split-face block can be used without a stucco or plaster finish, but must be architecturally treated and complement the adjacent dwelling units. All property fencing must be compatible in design and of similar materials.

- **Chapters 17.32.140 – 170 Landscape Design Guidelines.** The City's design guidelines are a reference to assist the designer in understanding the City's objectives for high quality landscaping. These guidelines are utilized during the design review process to encourage the highest level of design quality while at the same time providing the necessary flexibility to encourage creativity on the part of the project designers. Landscaping and open spaces should be designed as a central part of the site design, and should integrate development with the surrounding elements of the natural environment. Landscaping should enhance building design, public views and space, provide buffers and transitions, preserve and enhance wildlife habitat, provide shade and cooling, and provide screening from other nearby uses.
- **Chapter 17.24.150 – Screening.** All equipment, including utility equipment, located on the roof or side of structure, or on the ground, shall be screened. Heating and air conditioning equipment and pool equipment for single family homes must be located on the ground in the side or rear yard. The screen shall be architecturally compatible in terms of materials, color, shape, and size with the structure on or next to which it is located. Landscape screening for ground-mounted equipment shall be of sufficient size and quantity to fully screen the equipment within two years of installation.
- **Chapter 17.24.170 – Undergrounding of Utilities.** All utility lines located on or adjacent to a new project, as defined in this Chapter under Section 17.24.020, Applicability, shall be undergrounded at the time of development.
- **Chapter 17.20.010-050 – Open Space Districts.** The purpose of the Open Space districts is to preserve lands within the City for permanent open space and recreation. Lands in the Open Space districts should: provide pleasing vistas and preserve viewsheds; protect lands with significant hillsides or resources; provide recreational opportunities to the City's residents and visitors.

Title 18 – Grading, Erosion, and Sediment Control. In 2009 the City amended its *Municipal Code* to add Title 18, which defines grading standards for the City, including standards for hillside grading, slope protection, and ridgeline protection. Section 2 of the Ordinance notes that, "Grading and land clearing activities also impact the City's aesthetic value and community character. Establishing minimum standards and requirements relating to land grading, clearing, excavations, and fills, and procedures by which these standards and requirements may be enforced, will help ensure soil is not stripped and removed from lands in the City, leaving them unsightly and susceptible to erosion, subsidence, faulty drainage, and sediment

deposition.” Among the provisions of Title 18 that deal directly or indirectly with aesthetic impacts are:

- **Chapter 18.12.180 (Hillside Grading).** Development proposed in any hillside zoning district, open space district, or any hillside site shall conform to the following standards:
 - A. Development on lands with slopes of more than 25% is prohibited.
 - B. Development on plateaus shall include a one-hundred foot building setback from all ridgelines or edge of plateau.
 - C. Ridgelines are to be preserved.
 - D. Natural hillsides above the toes of slope shall be preserved. The toe of slope for the purposes stated herein shall mean the dividing line between the land or rock formations where there is a noticeable break in the angle of slope.
- **Chapter 18.15.020(B) (Construction Runoff Compliance).** Permittee shall adhere to the following requirements:
 - 18.15.020(B)(4): Minimize exposure time of disturbed soils areas;
 - 18.15.020(B)(5): temporarily stabilizes and re-seeds disturbed soil areas as rapidly as possible;
 - 18.15.020(B)(6): Permanently re-vegetate or landscape as early as feasible (slope re-vegetation means the planting of graded slopes with native and/or naturalizing plant species which, after an initial establishment period, usually requiring irrigation, will survive with normal precipitation).
- **Chapter 18.18.040 (Grading Requirements – Landscape Architect).** The landscape architect shall incorporate applicable recommendations from the geotechnical engineering reports into the landscape and irrigation Plans. All ground cover shall provide 100 percent coverage within nine months of planting or additional landscaping shall be required in order to meet this standard.

Title 15 - Chapter 15.080 (Temporary Site Vegetation – When Required). Temporary site vegetation shall be required, as determined by the City Engineer, on any disturbed soil areas of the site for prolonged periods of grading inactivity or expiration of a grading permit. Temporary vegetation shall not negate any City requirement or condition of approval to install permanent landscaping.

4.1.3 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines*, states that a project may be considered to have significant environmental effects related to Aesthetics, Light and Glare if it would:

- a) Have a substantial adverse effect on a scenic vista;
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- c) Substantially degrade the existing visual character or quality of the site and its surroundings;
- d) Create a new source of substantial light or glare, which would adversely affect day and nighttime views in the area.

4.1.4 IMPACT ANALYSIS AND MITIGATION MEASURES

ANALYTIC METHOD

The analysis of visual impacts in this chapter focuses on the nature and magnitude of changes in the visual character of the Project area that could occur as a result of the implementation of the proposed Project.

Since characterizing aesthetic impacts can be highly subjective, evaluation of aesthetic resources involves objectively identifying the visual features of the landscape and determining their importance. The analysis of visual impacts focuses on the nature and magnitude of changes in the visual character of the Project site due to the proposed Project. Examples would include a scenic vista along the boundary of a community or a pleasing streetscape with trees, well kept residences, and yards. These are scenic resources that create a pleasing impression of an area. Incompatible uses and wide variations in the quality of streetscape and property maintenance would likewise create a less-than-pleasing impression.

Visual change that is considered compatible with General Plan land use designations could still constitute a significant and unavoidable impact at a project level unless adequately mitigated. In addition to mitigation measures noted below, the proposed Project would also be subject to applicable General Plan EIR Mitigation Measures, most of which have been incorporated into the City's *Municipal Code*, and project-specific conditions of approval and/or mitigation developed through the City's discretionary review process.

As noted above, the previously approved the Deutsch Specific Plan and certified Deutsch Specific Plan EIR addressed development of the Project site with up to 5,400 dwelling units. This analysis has been updated to reflect the currently proposed Butterfield Specific Plan, including the offsite infrastructure and the addition of a 21-acre unincorporated parcel. The Project's impacts are analyzed at full Project build-out and in the Interim Phase between the site's initial grading and full build-out. In addition, long-term and construction phase impacts are analyzed for both onsite and offsite activity, including installation of offsite infrastructure.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES AND REQUIREMENTS

Existing local, State and federal regulations noted above will avoid or mitigate potential impacts related to aesthetics, light, and glare. The following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) The Project has been redesigned from the currently approved Deutsch Specific Plan to retain the northern steeper slopes in natural open space. In addition, in response to initial public scoping and discussions with adjacent residents, the Applicant further redesigned the Land Use Plan to create lower density residential and greater separation between proposed development areas and existing residential areas along Highland Home Road.
- 2) Mass graded areas will be re-vegetated at the completion of the mass grading process, pursuant to the City's *Municipal Code* and the Specific Plan. The vegetation will restore the non-native grassland that currently covers the Project site in those areas that are not immediately developed. Cattle grazing will continue on the site in various areas as the Project develops, allowing the site to retain its rural feel well into the development process.
- 3) Title 17 of the City's *Municipal Code (Zoning Code)* includes development and landscape standards that deal generally with contour grading, preservation of natural open space and scenic vistas, lighting, setbacks, walls, fences and hedges, undergrounding of utilities, etc. The Butterfield Specific Plan contains grading standards and landscape guidelines that both incorporate and exceed the City's Code design standards by providing detailed plans and standards for landscape plant palettes, architectural guidelines (including colors and materials), streetscape enhancements, park treatments, perimeter and interior fencing, etc. These guidelines will provide for a well designed, visually compatible development with enhanced streetscapes and landscaped medians, numerous parks, well designed slope landscape and edge treatments, enhanced perimeter walls, and other features that will significantly enhance the overall appearance of the Project.

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- 4) Common area landscape, including enhanced streetscape, parks, and fuel modification zones will be maintained by an HOA or by a Landscape and Lighting Maintenance District (LLMD) that could be formed as part of the Project financing, to ensure a uniform level and high standard of maintenance to maintain the long-term appearance of the community.
 - 5) The Project includes realignment, reconstruction, and re-vegetation of Smith Creek to restore its natural appearance, as well as provision of extensive greenbelt and landscaped groundwater recharge areas within the golf course, creating a positive aesthetic improvement.
 - 7) The above ground water storage reservoirs will be finished with a earth-toned, matte finish intended to allow the reservoirs to blend into the surrounding hillside areas. The reservoir areas will be further screened by the installation of perimeter landscaping.
 - 8) The optional wastewater treatment facilities would be located at the intersection of Highland Home Road and Wilson Street; refer to Exhibit 3.0-3, *Land Use Plan*. All treatment processes would be contained within an enclosed structure that incorporates residential design features including roofing materials, surrounded by a decorative masonry wall and landscaping to screen the facility. The 1-million gallon storage reservoir would be 36 feet in height, similar to the maximum height of a residential structure and would have a matte, earth-tone exterior finish and landscape screening to allow the reservoir to blend into the surrounding neighborhood. The treatment plant would observe a setback of 20 feet for all property lines
 - 9) The Project grading plan reflects the requirements of MC Section 17.08.240(P) by incorporating contour grading in hillside areas designed to blend the Project's manufactured slopes with existing natural terrain as required by Specific Plan Section 3.3.2, *Grading Plan Development Standards*.
 - 10) The Project's golf course will provide a view corridor to preserve vistas of the San Bernardino Mountain ridgelines and foothills to the north and east and vistas of the San Jacinto Mountains to the south. Open space and parks sited throughout the Project will provide scenic viewpoints.
 - 11) The Project's design and development guidelines include specific requirements and restrictions regarding site lighting including:
 - Architectural lighting and landscape accents shall be aesthetically pleasing and non-obtrusive.
 - Shielded lights shall be utilized throughout the community to reduce light and glare in compliance with the City's Municipal Code requirements.

- All lighting shall be designed and located to reduce power consumption to its lowest practical level and be compatible with the lighting on adjacent units.
- Streetlights shall conform to the overall project theme and City standards. On local streets, streetlights shall be located only at street intersections, knuckles, and cul-de-sacs and would not be located at mid-block to reduce nighttime light and glare impacts, as may be allowed by the City Public Works Director, City Engineer, and the City Municipal Code requirements.
- All exterior lighting for identification, pools, water features, and landscaping shall be subdued and indirect to prevent spillover onto adjacent lots and streets as required by City ordinance.
- Exposed bulbs, spotlights, and reflectors are prohibited.

Impact 4.1-1: Scenic Vistas and Scenic Highways

Threshold: a) *Would the proposed Project have a substantial impact on a scenic vista? and/or*
 b) *Would it substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?*

SHORT TERM (CONSTRUCTION) AND INTERIM (PHASING) EFFECTS

Determination: Less than Significant with Mitigation Incorporated

Impact Analysis – Initial Mass Grading and Interim Development Conditions

Determination: Less than Significant with Mitigation Incorporated

The primary scenic vista available from the Project site and from the surrounding area across the site is the view of the prominent ridgelines and peaks of the San Bernardino Mountains. The site has little intrinsic aesthetic value itself though, in its undeveloped state it offers a panoramic, unobstructed view of the San Bernardino Mountains ridgeline backdrop from adjacent streets such as Wilson Street, Highland Springs Avenue, and Highland Home Road and of the San Jacinto Mountains, including Mount San Jacinto, from the northern portions of the site and to traffic traveling south on Highland Springs Avenue. The site is not visible from I-10 westbound due to foreground berms and landscaping and is only intermittently and very briefly visible from eastbound lanes. The section of I-10 that traverses the City of Beaumont in the area of the site is not a designated scenic highway and, while designed as an “Eligible” scenic corridor, it does not currently meet the criteria for eligibility based on the poor visual quality of development adjacent to the right-of-way. The project site is visible in the distant background from State Route 243, a designated scenic highway that terminates south of I-10.

Construction of the proposed Project will include mass grading of the site in four phases and subsequent rough grading of individual tracts within the Specific Plan site followed by the associated vertical construction of homes and other facilities. The visual character of the site would be dramatically altered as a result. However, since the site does not itself possess

distinctive scenic resources such as geologic formations, historic structures or significant stands of trees, its grading and development would not result in a direct substantial adverse impact to scenic resource. Development of the site would alter the existing view corridor offered by the undeveloped site and modify the quality of the scenic vista currently available, particularly from Wilson Street. It would not, however, obscure the scenic vista provided by the San Bernardino Mountains to the north or the San Jacinto Mountains to the south from any point along the perimeter of the project with the possible exception of those portions of west-bound Wilson Street and portions of southbound Highland Home Road and Highland Springs Avenue traversing flat, lower elevation terrain along the currently undeveloped frontage, where the foreground would be dominated by homes, perimeter walls and maturing landscape, especially trees, that would block the line of sight to long range views to the north and southeast. That condition currently exists along the entire developed Wilson Street frontage through the City of Banning and extending west into the City of Beaumont.

The 4 phases of proposed mass grading will result in the short-term exposure of unvegetated soils, which would be unsightly and which must be stabilized to prevent erosion and adverse impacts to the site's natural drainage features and surface water quality. To address this condition, the City's grading requirements include the re-vegetation and/or re-seeding of exposed soils in the mass graded area with native plant materials at the earliest possible time (MC Chapter 18.15.020). Should areas that have been mass graded remain undeveloped for a considerable period of time, Title 18 allows the City to require the installation of additional interim landscaping; however, reseeding itself will effectively return mass graded areas of the site not slated for immediate development to a visual aspect very similar to its current state in the interim condition. In addition, the site will be graded pursuant to the requirements of Chapter 17.08(P) which requires the use of contour grading designed to blend with, and to the extent feasible, follow the natural terrain, also required by the Specific Plan Grading Standards. Adherence to cited City Code requirements, Mitigation Measure AES-1, and the provisions of the Specific Plan's Landscape Guidelines and Grading Standards would effectively reduce visual impacts associated with mass grading. Visual impacts created by subsequent site improvement including rough grading and vertical construction would be addressed by the installation of permanent landscape and adherence to the design requirements of the Specific Plan.

Construction will also require the temporary use and storage of heavy equipment and vehicles onsite that may be visible offsite. Pursuant to Mitigation Measure AES-6 the Applicant shall identify construction staging areas and mitigate potentially unsightly equipment by, among other things, requiring a 500 foot setback of the staging area from the nearest residences and screening where feasible.

Development of the proposed Project is expected to occur over a 30-year period and involve not only the four phases of mass grading, but also subsequent rough grading to construct pads and local streets, and construction activities including installation of permanent walls and fencing,

construction of homes, open space improvements, and permanent landscaping at different locations at different times. Accordingly construction phase, interim phase, and operational phase visual impacts can be expected to continue and change until the Project is fully built out. Mitigation measures will be undertaken incrementally as development proceeds and would vary by site based on the phasing of development.

Impact Analysis - Onsite Backbone & Offsite Infrastructure

Determination: Less than Significant with Mitigation Incorporated

The initial implementation phase of the proposed Butterfield Specific Plan Project would include trenching and installation of water, wastewater, and recycled water pipelines, and dry utilities, and the construction of the major drainage facilities, including the realignment of Smith Creek, in addition to onsite and offsite drainage and/or retention basins, and the multi-use basin in PA 71. These initial construction activities are expected to occur over a 24-month period and would cease upon completion of the initial construction phase. Since the proposed on- and offsite pipelines would be located underground, no long-term impacts to scenic vistas would occur as a result of their construction. Proposed Smith Creek improvements, including offsite culvert improvements and temporary impacts to off-site drainage feature at the north and south boundaries of the Project where Smith Creek enters and leaves the site, would be revegetated and mitigated in accordance with the requirements of the project's biological resource permits (see Section 4.4, *Biological Resources*), and the Creek itself is not sufficiently defined so as to be visible from I-10. The optional sewer lift station, at the intersection of Ramsey Street and Omar Street, would have limited visibility from I-10 due to intervening structures, and would be enclosed in an appropriately designed and screened building.

Mitigation Measures

The following mitigation measure will reduce the visual impacts to scenic resources and scenic vistas associated with the development of the Project in the construction and interim conditions as the Project builds out to a less than significant level. Potential adverse Project effects would also be mitigated through the enforcement of various existing City regulations and ordinances noted above and in the Regulatory Section. In addition, the Project has reduced, avoided or offset potentially adverse impacts to aesthetic resources through Project Design Features summarized in Section 3.7, *Project Design Features*:

- AES -1:** Development or revegetation shall be initiated within three months following initiation of mass grading or clearing activities, where feasible, so as to limit the time graded surfaces remain in their exposed state, consistent with the Specific Plan's approved landscape design guidelines and landscape plans and the provisions of Title 18.15.020 of the City's *Municipal Code*. A Revegetation Plan, addressing interim revegetation during construction and for future development areas prior to buildout, shall be submitted for City review and approval as part of each grading permit application.

- AES -2:** The faces of all slopes shall be prepared, protected and maintained to control erosion and to reduce the visual impacts of slope grading. Slopes in excess of ten feet in height shall be graded pursuant to City Code requirements. Devices or procedures for erosion protections shall be installed as prescribed by State law and regulations and Title 18 of the City's *Municipal Code* and shall be maintained in operable condition by the developer during the duration of the activity for which the grading permit was issued. The use of plastic sheeting for erosion control shall be avoided except where required in emergency conditions to prevent land slippage. Preferred means of erosion and sediment control on slopes and pads shall include hydromulching, placement of straw bales and wind fencing, and the use of straw blankets and similar devices
- AES -3:** The Project developer shall maintain the site free of debris, which shall be promptly removed from the site when found at least once a quarter and at least daily during construction, and the Project developer shall monitor the site at least once a quarter and at least daily during construction to protect the site from illegal dumping.
- AES -4:** The Project developer and its successor(s) in interest inclusive of the HOA or Landscape Lighting and Maintenance District, if any, shall maintain perimeter walls, fencing, irrigation, and landscape in a satisfactory condition at all times. Parkways and other landscape features visible from the public right of way shall be maintained free of weeds and trash and graffiti shall be promptly removed.
- AES-5:** Rough Grading Plans, including a sheet detailing the location of the construction staging, shall be approved by the City Engineer, prior to grading permit issuance. The sheet pertaining to the construction staging shall include the following provisions:
- The construction equipment and supply staging areas shall be at least 500 feet from the nearest residence off site. Staging areas shall be screened where feasible.
 - During construction and grading, the construction contractor shall keep the site clear of all trash, weeds, and debris. Compliance with this measure is subject to periodic City inspections.
 - The grading contractor shall minimize creation of large stockpiles of soil (in terms of height) to minimize visual impacts pursuant to the provisions of the grading and/or stockpile permit issued by the City Engineer pursuant to the provisions of MC Section 18.09, *Grading Permit Requirements*, and the requirements of the City Engineer.
 - All temporary security lighting shall be designed and located so as to avoid intrusive effects on adjacent properties. Proper lighting techniques to direct

light onsite and away from other properties shall be required to reduce light and glare impacts (including directional lighting away from reflective surfaces, use of non-reflective glass, low-intensity lighting, use of lighting baffles, and use of appropriate types of lighting fixtures).

LONG TERM EFFECTS

Determination: Less than Significant with Mitigation Incorporated

The Project site is currently vacant and bounded by Highland Springs Avenue on the west, Wilson Street on the south, and Highland Home Road on the east. Portions of the site are briefly and intermittently visible from east-bound lanes of a portion of I-10 that is an “eligible” State scenic highway. The Project site’s natural topography ranges from relatively flat in the southern portion of the site to rolling to steep foothills in the north/northeast. Site elevation ranges from 2560 feet amsl to 3400 feet amsl. A golf course and the Smith Creek drainage channel are proposed to extend through the development from the foothills to the valley floor. Development extending into the foothill area consists of low density residential uses, open space and a portion of the Project’s proposed golf course. Development of the site will result in a change in the site’s topographic relief and will change its use from open space/live stock grazing to urban development that includes a mix of residential, commercial, recreational, and open space uses.

The visual impact of City-planned urban development reaching into the lower elevations of the San Bernardino Mountains foothills was considered as part of the Banning’s 2005 Comprehensive General Plan and addressed programmatically in the General Plan EIR. The General Plan EIR determined that the impacts of such development on the City’s scenic resources would be less than significant with the implementation of General Plan EIR mitigation measures cited in the Regulatory Framework section of this analysis, and subsequently incorporated into the City’s *Municipal Code*. The proposed Project is an amendment and restatement of the previously approved Deutsch Specific Plan and is located in an area that has long been planned for urban development; therefore, the visual impacts of its development were considered as part of the cumulative impact analysis contained in the General Plan EIR Visual Resources section. All relevant provisions of the Code would apply in full to the development of the proposed Butterfield Specific Plan. Mitigation measure AES-4 would further mitigate the Project’s long term impacts by requiring maintenance of the Project’s perimeter and internal landscape, including streetscape, walls, parks, slopes and open space areas by a funded Homeowner’s Association or Landscape and Lighting Maintenance District.

Although Project development would alter the topography and appearance of the Project site, that development would not necessarily “degrade” its visual quality in the interim or build-out conditions. Construction phase impacts would be temporary and gradual, affecting discrete portions of the site. As implementation of the Specific Plan proceeds, developed areas of the Project site would be suitably landscaped, its slopes vegetated, and the edges blended into the

adjacent natural vegetative cover. The developed foreground of the site would include landscape-enhanced streetscapes and well-designed homes. Perimeter walls and landscaping, landscaped slopes in the higher elevations, the golf course, and reconstructed Smith Creek channel would be among its most prominent visual elements. Development of the proposed Specific Plan Project would include implementation of Specific Plan development standards for architectural design, massing and scale, building materials and colors in addition to landscape standards that feature the use of native plant materials. Approximately 27 percent of the Project site would be maintained in various open space uses. The Project's development would not constitute a barrier to the designation of the Pass area I-10 corridor as a State scenic highway as envisioned by the County RCIP nor would it obstruct long distance views of the foothills and mountains except immediately adjacent to the development boundaries, where the foreground of homes, walls and landscape would block the line of sight.

Impact Analysis – Proposed On-site Satellite Treatment Facility

Determination: Less Than Significant with Mitigation Incorporated

The satellite water treatment facility would collect and redirect wastewater flows from the Project site and neighboring developments, and would be screened by a 6-foot high decorative masonry wall and perimeter landscaping (refer to Section 3.5.3.5, *Infrastructure*). As currently proposed, the treatment facility would be located within an approximate 3 acre site at the northwest corner of Highland Home Road and Wilson Street. All treatment processes would take place within an enclosed structure(s) constructed of decorative concrete block and would use residential architectural design and residential-type roof materials to blend the facility into the surrounding residential community and nearby commercial uses. All employee and maintenance parking would be located within the facility's perimeter walls. In visual aspect, the treatment plant would not differ significantly from nearby commercial development. The tallest structure, a one million gallon water storage tank, would be approximately 36 feet in height, similar to the maximum height of a residential structure and would be set back a minimum of 20 feet from the property line. The plant's elevation would be too low for it to be viewed from east-bound I-10, nor would it obstruct long-range views of the mountain ridgelines to the north and south from that location.

A proposed sewer lift station would be located on a vacant lot in a primarily commercial area (on a less than one-acre size parcel, and only one story tall), and the sub-surface force main from the lift station to the Project site would be installed within existing street rights-of-way, with no lasting impact on visual resources or scenic vistas once construction is complete.

Impact Analysis - Above-Ground Reservoirs

Determination: Less than Significant with Mitigation Incorporated

The development of the proposed Project includes the construction of approximately three above ground water storage reservoirs, as described in Section 4.1.2.1 under *Interim Development*

Setting. Reservoir 1 would be constructed during development phase 1 in one of two possible locations. If located on the proposed school site, the reservoir would be buried underground and would have no impacts on scenic vistas; however, if located on the other alternative site, the pad elevation (2,790 amsl) of the reservoir would be visible from the surrounding community, though the degree of visibility would vary depending upon location, distance, and the presence of visual obstructions such as foreground structures and mature vegetation, tank coloration and the gradual maturing of screening vegetation both around the reservoir and within the surrounding community. Reservoir 2 would be located at an elevation of 3,038 amsl and Reservoir 3 would be located at an elevation of 3,205, which may be visible from the surrounding community and/or the eastbound I-10 corridor. A typical reservoir for this type of development could potentially be as much as 36 feet high with a 110 foot diameter. However, as indicated in Project Design Features 7 and required by Mitigation Measure AES-7, the exterior of the reservoirs would be painted with a matte-finish, earth-toned coating to allow them to blend into the surrounding hillside and would be further screened by perimeter and slope landscape. The combination of appropriate color coating and landscape screening would reduce the optional treatment plant's long-term impacts on scenic vistas to a less than significant level.

Impact Analysis – Offsite Infrastructure

Determination: Less than Significant Impact

There would be no long-term visual resource impacts associated with offsite sub-surface pipelines and no disruption of scenic vistas or scenic resources associated with the I-10 corridor. The offsite sewer lift station would be located on a small commercial lot in an appropriately designed and screened building pursuant to City Design Guideline requirements contained in the City's Municipal Code and the Specific Plan.

Impact Analysis - 115kv Line Relocation

Determination: Less than Significant Impact

The Project includes relocation of two segments of an existing above-ground 115kv power line. Relocated portions will be above-ground, along the northeastern edge of the proposed development area, subject to review and approval by the California Public Utilities Commission (CPUC) and Southern California Edison (SCE). The power line relocation would have negligible effect on views from existing residences located along Highland Home Road and along the western edges of a more recently development subdivision adjacent to the site boundary to the southeast. Existing hillside contours and mature windrows in and around the adjacent subdivisions create a foreground conditions that block views to the north and west where the poles are located. Development within the Specific Plan Project area, including slope landscape as it matures, will further obscure views of the relocated transmission line from on-site and off-site.

Mitigation Measures

Mitigation Measure AES-6 will reduce a potentially significant scenic vista and visual resource impact related to the existing oak tree on Highland Springs Avenue to a less than significant level by requiring avoidance and preservation as the preferred alternative to removal of the tree if at all feasible. Mitigation Measure AES-7 would require finishes and screening for on-site above ground water storage tanks to reduce visual impacts to a less than significant level. Potential adverse Project effects are also “mitigated” through the various existing regulations and ordinances noted above. In addition, the Project has reduced, avoided or offset potentially adverse impacts to aesthetic resources through Project Design Features noted above (all of which are summarized in Section 3.7, *Project Design Features*)

AES-6: As part of the final design, improvement plan and grading plan review and approval process, the applicant shall design plans to preserve the existing oak tree along Highland Springs Avenue (or in the event preservation is not feasible, relocate or replace at suitable size).

With the implementation of Project Design Features, including compliance with the Specific Plan’s Grading Standards and Landscape Guidelines, Mitigation Measures AES-1 through AES-6, and compliance with the City’s grading requirements (Title 18) and landscape design standards (Title 17), which requires a landscape design intended to screen development and blend the project edges with the adjacent natural open space, the Project’s long-term impacts on scenic vistas and potential impacts on any scenic resources associated with a potential scenic highway would be reduced to a less than significant level.

Impact 4.1-2: Visual Character

Threshold: *Would the proposed project substantially degrade the existing visual character or quality of the site and its surroundings?*

SHORT TERM CONSTRUCTION AND INTERIM EFFECTS)

Determination: Less Than Significant with Mitigation Incorporated

Impact Analysis - Initial Mass Grading and Interim Development Conditions

Determination: Less Than Significant with Mitigation Incorporated

Refer to discussion above under Impact 4.1-1. The implementation of the proposed Project will occur in phases over a 30-year period. Proposed site development would involve construction activities that may potentially impact the existing visual character and quality of the Project site and surrounding areas incrementally over a substantial period of time. At no point would construction activity occur over the entire site at once. As noted in the previous impact analysis, the Project site will be mass graded in approximately four phases. Exposed, graded surfaces, construction debris, construction equipment, and heavy truck traffic would be visible

in various locations at various times during the lengthy implementation phase of the project; however construction phase impacts would be temporary and, with the exception of mass grading, very limited as to scope and location. The staging and operation of heavy equipment, the appearance of graded areas prior to temporary or permanent re-vegetation, and material and debris stockpiles could result in a temporary degradation of the aesthetic qualities and visual character of the Project site and immediately surrounding area; however implementation Mitigation Measures AES-2, AES-3, and AES-5, in addition to the enforcement of existing provisions of the City's *Municipal Code*, and implementation of the Specific Plan's grading standards would reduce the impacts to the visual quality of the site in both the short-term construction and interim phase conditions to a less than significant level by requiring re-vegetation of graded surfaces including slopes as soon as feasible after grading is completed, requiring contour grading of slopes in excess of 10 feet in height, requiring slope stabilization using hydromulch and other bio-degradable and natural appearing materials and techniques to the extent feasible, avoiding large stockpiles of dirt, requiring contractors to maintain construction and grading sites clear of debris and trash, and mandating the location of staging areas at least 500 feet from residences and requiring screening of these areas.

In addition, the gradual installation of permanent landscape pursuant to the landscape guidelines contained in the Specific Plan over the course of the Project's development will provide further visual relief and gradually transform the appearance of the Project site in a positive way. While mass grading of the site would create temporary visual impacts over larger areas than would be affected by the development of individual subdivisions, prompt reseedling of mass graded areas would quickly return the majority of the site to its current visual aspect at the initiation of that activity. Accordingly, impacts to the visual character and quality of the site and surrounding area associated with Project implementation, especially in the early phases of development, would be reduced to less than significant with mitigation incorporated..

Impact Analysis - Onsite and Offsite Infrastructure

Determination: Less Than Significant with Mitigation Incorporated

Refer to above discussion under Impact 4.1-1. The following discussion supplements the analysis contained in Impact 4.1-1, where relevant for individual Project facilities.

Drainage Improvements

The construction of the proposed offsite drainage improvements include offsite excavation, grading and construction of inlet structures, construction of a multi-use basin north of the proposed extension of Brookside Avenue, realignment of Smith Creek onsite, and channel improvements to the Smith Creek drainage south of the culvert beneath Wilson Street. The potential drainage improvements would be at grade and would result in minimal impacts to visual character once construction is completed and vegetation is re-established. The short-term visual effects associated with construction of proposed on and offsite Smith Creek improvements would result in a less than significant impact on visual character.

Onsite Wastewater Treatment Plant

Construction phase impacts would be temporary and would not differ from impacts associated with the balance of the development.

LONG TERM EFFECTS

Determination: Less than Significant With Mitigation Incorporated

Refer to discussion above under Impact 4.1-1. Development of the proposed Project would replace the vacant grassland character of the site, with a residential, institutional, commercial and recreational development including a golf course, and both natural and landscaped open space. Accordingly, the visual character of the Project site would be permanently altered. However, altering the visual character of a site does not necessarily mean that the visual character or quality of the site is “degraded.” The proposed Project is not located in a designated Open Space District, does not contain unique geologic features, visual resources, or cultural/historical resources, and is not located in (or regulated by) an adopted Corridor Protection Plan. Used for occasional cattle grazing, the site is highly disturbed and vegetated primarily with non-native grasses and chaparral, with the exception of scattered brush and trees in the upper and lower reaches of Smith Creek. Highland Springs Avenue, particularly in its higher elevations, would continue to provide a view corridor from which motorists and pedestrians would have views both north and south to the mountain ridgelines of the San Bernardino and San Jacinto Mountains. The widening and extension of Highland Home Road would provide an additional view corridor to the mountains and foothills from Wilson Street. Mid-range views of the site’s foothill area would still be available, though ultimately altered by development.

Views across the site from Highland Home Road and Highland Springs Avenue may be partially blocked by project development, but these do not, for the most, include significant ridgelines and are private views. Although private views (in this case, from the current residences along the southern, western, and eastern boundaries of the Project site) may be impacted by Project implementation, private views are not expressly protected by State law, local policies, or significance thresholds in the Comprehensive General Plan and Zoning Ordinance EIR.

The design of the Butterfield Specific Plan reflects sensitivity to onsite landforms, and its grading concepts were developed to enhance the Project’s compatibility with the existing valley and foothill topography, especially in its edge treatments and approach to cut slopes. The Specific Plan includes Grading Standards that incorporate contour grading to soften the appearance of manufactured slopes and allow for a blending of man-created and natural topography. Slope planting would make use of native plant materials including trees, shrubs and groundcover that would, once mature, provide variations in texture, color, height, and ground coverage that reflect the surrounding natural vegetation as well as providing the appearance of natural uneven ground beneath (e.g., “Landform Landscaping”). The Project’s

land use plan incorporates open space planning areas in the far northern and eastern edges of the Project site where elevations are highest to preserve natural edges as they blend into the rugged adjacent foothills.

The Landscape Concept Plan and Specific Plan Landscape Guidelines, together with the requirements of the City's Municipal Code, require incorporation of fuel modification zones (where combustible vegetation within 100 to 150 feet of structures will be modified and controlled) to provide a buffer and transition between residential uses and native habitat. While the purpose of fuel modification zones is to prevent the spread of wildfire into the developed area, these zones would additionally enhance the visual quality of the site relative to the surrounding landscape. Since natural vegetation in these areas is sparse, the thinning required in fuel modification zones would effectively reduce edge impacts. The Specific Plan Landscape Guidelines include utilization of native, drought-tolerant species, which would contribute to a sense of unity with the surrounding environment by enhancing compatibility with the adjacent natural landscape.

The land use plan also identifies easement areas, which provide a setback of approximately 430 feet (100 feet onsite and 330 feet offsite) between the proposed Project development and existing residential developments along the Project's southeastern border. This setback reduce the potential impacts of development on existing residences located in the vicinity of this portion of the Project by providing significant open space between these homes and the development edge.

The Project would include approximately 430 acres of open space, including the golf course, parks and natural open space, an area equivalent to approximately 27 percent of the site. These open space and recreational areas would preserve existing, or create new, scenic vistas. Uses proposed for these open space areas are consistent with the requirements of MC Chapter 17.24-010-050 (Open Space Districts), would substantially enhance the internal appearance of the Project site, and would further reduce any adverse impacts on the visual character and quality of the site and the surrounding area. As the Project develops, its landscape elements would mature and would provide additional visual relief, adding to, rather than detracting from, the visual character and quality of the site and the surrounding area.

The Specific Plan includes several computer-generated renderings, indication conceptualized "before" and "after" views across the Project site from various surrounding locations throughout the Specific Plan, including Exhibits 4.9B and 4.9C.

Accordingly, while development of the proposed Project would alter the existing disturbed grassland aesthetic and visual character of the project site by developing the site as a suburban community, the Project would not *degrade* the existing visual character and quality of the site and the surrounding area. Rather, at build out the proposed Project would *enhance* the visual character of the Project and the visual quality of the site and its surrounding area.

Impact Analysis – Optional On-site Satellite Treatment Facility

Determination: Less than Significant

Refer to above discussion under Impact 4.1-1 The optional onsite wastewater treatment plant will be designed pursuant to Specific Plan Design Guidelines (Section 3.5.5), including appropriate landscaping, lighting, building materials and setbacks, such that potential visual quality and character impacts are reduced to a less than significant level.

Impact Analysis - Drainage Facilities

Determination: Less than Significant

Refer to discussion above under Impact 4.1-1. The installation of drainage facilities and the realignment of Smith Creek onsite will be followed by re-vegetation of the drainage and related facilities pursuant to applicable jurisdictional permits, the Landscape Design Concept of the Specific Plan, and the requirements of the City's Landscape Standards ordinance. Long term effects on visual character and visual quality will be less than significant.

Impact Analysis – Above Ground Water Storage Tanks

Determination: Less than Significant

Refer to discussion above under Impact 4.1-1. With implementation of Project Design Features, long term impacts to visual quality and character of the site or surrounding area associated with the above ground water storage tanks would be reduced to a less than significant level.

Impact Analysis – Offsite Infrastructure

Determination: Less than Significant Impact

Refer to discussion above under Impact 4.1-1. There would be no significant long term impacts to the visual quality and character of the site or surrounding area associated with off-site infrastructure.

115kv Line Relocation

Determination: Less than Significant Impact

Refer to discussion above under Impact 4.1-1. There would be no significant long-term impacts to the visual quality and character of the site or surround areas associated with the relocation of the existing 115kv transmission line.

Mitigation Measures

Mitigation Measures AES-2, AES-6, and Project Design Features will reduce potentially significant impacts to visual character and quality of the site and surrounding area to less than significant levels. Potential adverse Project effects are also reduced through implementation and compliance with the various existing regulations and ordinances noted above. In addition, the Project has reduced, avoided or offset potentially adverse impacts to aesthetic resources through Project Design Features summarized in Section 3.7, *Project Design Features*, of the Specific Plan and listed above.

Impact 4.1-3: Light and Glare

Threshold: *Would the proposed project create a new source of substantial light or glare, which would adversely affect day and nighttime views in the area?*

Impact Analysis - Interim Development and Construction Condition

Determination: *Less than Significant with Mitigation Incorporated*

Short-term construction activities could include nighttime security lighting, that would potentially introduce new sources of light and glare into the Project site and surrounding properties during the mass grading and infrastructure construction phase, and throughout remaining construction phase(s) of the proposed Project. Construction of offsite infrastructure improvements within public street right of way could occur at night to avoid disruption of traffic and/or to expedite installation. Night lighting onsite could affect adjacent residential uses along the Project's southern boundary (south side of Wilson) and along Highland Home Road and the residences located in adjacent subdivisions at the eastern boundary of the Project site. Locating staging areas a minimum of 500 feet from residential uses to the extent feasible, and requiring that all temporary security lighting be designed and located so as to avoid intrusive effects on adjacent properties as required by Mitigation Measure AES-5, and adherence to the requirements of the City's lighting ordinance would effectively mitigate the potential impacts of onsite night security lighting during the construction phases of the Project. Night construction lighting during the installation of offsite infrastructure could be disruptive to adjacent residential uses or could introduce light into currently dark areas of the hillside in the case of the extension of the State Water Project line. Screening of construction areas where night lighting is used could reduce this impact, which would in any case be temporary, short-term, and would cease upon completion of installation of offsite pipelines.

Since on- and offsite pipelines would be underground, long-term operational impacts associated with light and glare are not anticipated. Minimal security lighting may be implemented at the lift station near the intersection of Omar Street and Ramsey Street; however, since the lift station would be located in an existing commercial area along a major arterial, impacts related to light and glare from this Project feature are considered less than significant.

As each phase is developed, permanent landscape and lighting treatments will provide a visual and light/glare buffer between construction areas and existing onsite and offsite areas. In addition, conformance with the provisions of the City's lighting ordinance and adherence to the lighting control provisions of Mitigation Measure AES-5 and AES-7 will reduce temporary light and glare impacts throughout the construction and interim implementation phases of the Project to less than significant levels.

Impact Analysis – Long Term Build Out

Determination: Significant and Unavoidable

New development can cause visual impacts through the introduction of new light sources that result in glare, light pollution, and light trespass. Glare is defined as the sensation produced by luminance within the visual field that is significantly greater than the luminance to which the eyes are adapted, which can cause annoyance, discomfort, or loss in visual performance and visibility. Light pollution is caused by stray light from unshielded light sources and light reflecting off surfaces that enters the atmosphere where it illuminates and reflects off dust, debris, and water vapor to cause an effect known as "sky glow." Light pollution can substantially limit visual access to the night sky, compromise astronomical research, and adversely affect nocturnal environments. Light trespass causes annoyance, discomfort, distraction, or a loss of visibility. New development can cause these impacts by introducing new light sources such as street lighting, exterior and interior building lighting, vehicle headlights, illuminated signage, traffic signals, sports field lighting, and new glare sources such as reflective building materials, roofing materials, and windows.

As an undeveloped area used for cattle grazing, the existing Project site currently has no sources of light or glare, and therefore does not create light or glare impacts on adjacent land uses. Predominantly residential development abuts the Project site to the northwest, west, south, and southeast. The area to the north and northeast of the Project site is largely undeveloped or sparsely developed. Implementation of the proposed Project would result in construction of up to 5,387 dwelling units, two schools, approximately 36 acres of commercial uses, as well as parks, a golf course, various drainage facilities (including a multi-use basin), a potential satellite wastewater treatment plant, above ground water storage reservoirs, and a potential fire station (pad), all of which would permanently alter the lighting levels of the existing environment. The proposed Project would create substantial new sources of light and glare typical of the suburban uses proposed: streetlights, residential and commercial lighting, security lighting, and safety lighting for the commercial, schools, parks, golf course, and infrastructure facilities. These new sources of light and glare would be most visible from development located along adjacent roadways including receptors such as area residents and traveling motorists. All developed areas and trails will have 24-hour security lighting, and active recreation areas (parks, golf course, schools, community center) may have lighting for activities and events up to 10:00 P.M., per City Municipal Code. The commercial areas and fire station may have 24-hour lighting as permitted in the Specific Plan and Municipal Code.

Pursuant to City Code, street and sign lighting within the Project would be oriented toward and confined within the development site to prevent spillover into adjacent properties. In addition, as a Project Design Feature, the proposed Specific Plan includes design guidelines that are intended to make the development as compatible with the rural nature of the area as possible, by, among other things, controlling light and glare impacts. As noted under Project Features, these provisions include the following:

- Architectural lighting and landscape accents shall be aesthetically pleasing and non-obtrusive.
- Shielded lights shall be utilized throughout the community to reduce light glare in compliance with the City's Municipal Code requirements.
- All lighting shall be designed and located to reduce power consumption to its lowest practical level and be compatible with the lighting on adjacent units.
- Streetlights shall conform to the overall project theme and City standards. The number of street lights on local streets would be reduced by locating light only at local street intersections, knuckles, and cul-de-sacs and would not be placed mid-block in order to reduce nighttime light and glare impacts.
- All exterior lighting for identification, pools, water features, and landscaping shall be subdued and indirect to prevent spillover onto adjacent lots and streets as required by City ordinance.
- Exposed bulbs, spotlights, and reflectors are prohibited.
- Nighttime lighting for parks and golf course are subject to City Municipal Code restrictions (10:00 P.M. shutoff without prior approval), and security lighting will be provided at all facilities, trails, parks, etc., per City Municipal Code.

Mitigation Measures

Mitigation Measure AES-7 will reduce potentially significant light and glare impacts to the extent feasible. The Project has also reduced, avoided or offset potentially adverse impacts to light and glare through Project Design Features noted above (all of which are summarized in Section 3.7, *Project Design Features*).

AES-7: Prior to issuance of building permits, architectural plans, including detailed lighting specifications, shall be submitted for the review and approval by the City of Banning Community Development Director. The specifications shall be consistent with lighting standards included in the Specific Plan and shall meet or exceed the lighting standards contained in the City's *Municipal Code*. The lighting plans must demonstrate the following to the satisfaction of the City of Banning Community Development Director:

- Use of low-sodium lamps of 4,050 lumens or less where feasible, to provide for adequate public safety and security;

- A lighting standard that is shielded to direct illumination downward and to limit casting light and glare on adjacent properties;
- Exterior lighting, including street lights, landscape lighting, parking lot lighting, and lighting of the interior of parks and trails shall be sufficient to establish a sense of well-being for the pedestrian and sufficient to facilitate recognition of persons at a reasonable distance. Type (lighting standard) and placement of lighting shall be to the satisfaction of the Police Department and Department of Public Works and shall be consistent with the requirements of the City's most current lighting ordinance and the standards of the Specific Plan ;
- A minimum of one foot-candle at ground level overlap provided in all exterior doorways and vehicle parking areas, and on outdoor pedestrian walkways presented on a photometric plan; and
- Outdoor light fixtures that are not covered by the Specific Plan's lighting standards shall be subject to the City of Banning *Municipal Code*.

While implementation of Mitigation Measures AES-5 and AES-7 and adherence to the requirements of the City's lighting ordinance would partially reduce residual light and glare impacts, they would remain significant and unavoidable.

4.1.5 CUMULATIVE IMPACTS

AESTHETICS

Determination: Less than Significant with Mitigation Incorporated

The geographic context for the analysis of cumulative visual impacts is the San Gorgonio Pass area including the City of Banning, the City of Beaumont, and the adjacent unincorporated areas of the County of Riverside. The proposed Butterfield Specific Plan Project would contribute to the on-going development of projects on undeveloped or vacant land through the creation of a new residential community. According to the *City of Banning General Plan EIR*, build out of the General Plan would result in significant visual impacts within the City, which would be mitigated to a less than significant level through the implementation of EIR-specified mitigation measures which have since been incorporated into the City's *Municipal Code*. Implementation of the proposed Project in compliance with current City standards, proposed Mitigation Measures, and the design guidelines contained in the Specific Plan would result in less than significant impacts related to scenic vistas and visual character.

LIGHT AND GLARE

Determination: Significant and Unavoidable

Given the size of the proposed Project relative to anticipated future development in the City, the Project's impact on cumulative light and glare would be perceived as a substantial part of the

overall, cumulative visual changes that would occur at General Plan build out. Although the surrounding area is quickly urbanizing, there will be additional light and glare generated from the proposed Specific Plan.

The nature of the proposed development, the magnitude and scale, and the existence of sensitive receptors (residences and the hospital) adjacent to the site will result in significant light and glare impacts to these areas. The proposed Project would contribute to light and glare in conjunction with past, present, and future projects. Mitigation Measures are proposed to reduce this impact; however, this is considered a significant cumulative impact.

4.1.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the proposed Project with Mitigation Measures AES -1 through AES-6 and adherence to the applicable provisions of the City's Municipal Code and the architectural and landscape standards contained in the Specific Plan would reduce aesthetic impacts related to scenic vistas, visual character to a less than significant level. Even with recommended mitigation measures, the Project's impact on light and glare is considered significant and unavoidable (although typical of any large-scale residential development, and mitigated to the extent feasible).



1 Looking northeast from corner of Highland Springs Avenue and Wilson Street



2 Looking east from intersection of Highland Springs Avenue and E. 14th St.

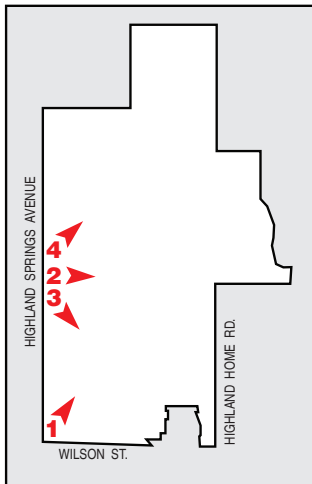


PHOTO INDEX MAP



3 Looking southeast from intersection of Highland Springs Avenue and E. 14th St.



4 Looking northeast on Highland Springs Avenue.

SOURCE: RBF Consulting, site visit conducted on August 26, 2010



NOT TO SCALE

5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN

On-Site Photographs 1 thru 4

AR 003715
EXHIBIT 4.1-1A

AR000319



5 Looking east from Brookside Avenue at Highland Springs Avenue (Brookside / Highland Home Road connection)



6 Looking east along Wilson Street



7 Looking northwest toward Smith Creek at Wilson Street

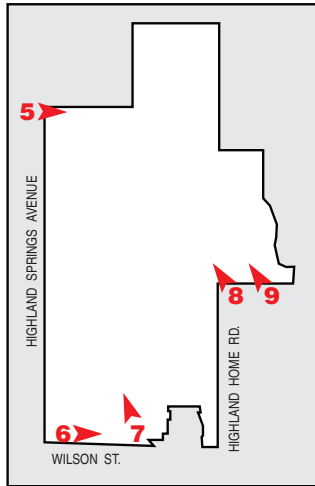


PHOTO INDEX MAP



8 Looking northwest from eastern boundary, vicinity of Mockingbird Lane



9 Looking northwest from eastern boundary, vicinity of Mockingbird Lane

SOURCE: RBF Consulting, site visit conducted on August 26, 2010



NOT TO SCALE

5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN

On-Site Photographs 5 thru 9

AR 003716
EXHIBIT 4.1-1B

AR000320



1 Looking south on Noble Street (SWP pipeline alignment)



2 Looking west on Brookside Avenue (SWP pipeline alignment)

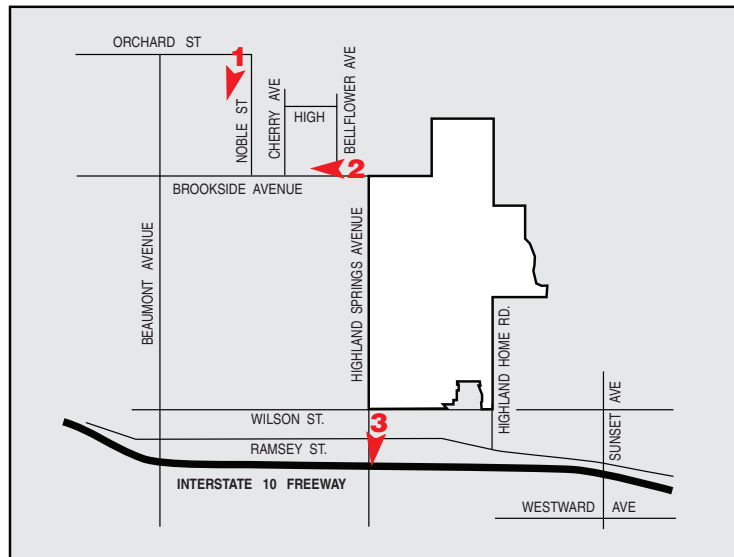


PHOTO INDEX MAP



3 Looking south on Highland Springs Avenue (Road improvements)

SOURCE: RBF Consulting, site visit conducted on August 26, 2010



NOT TO SCALE

5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN

Off-Site Photographs 1 thru 3

AR 003717
EXHIBIT 4.1-1C

AR000321



4 Looking south on Wilson Street at future Smith Creek improvements location



5 Looking north on Highland Home Road at Wilson Street

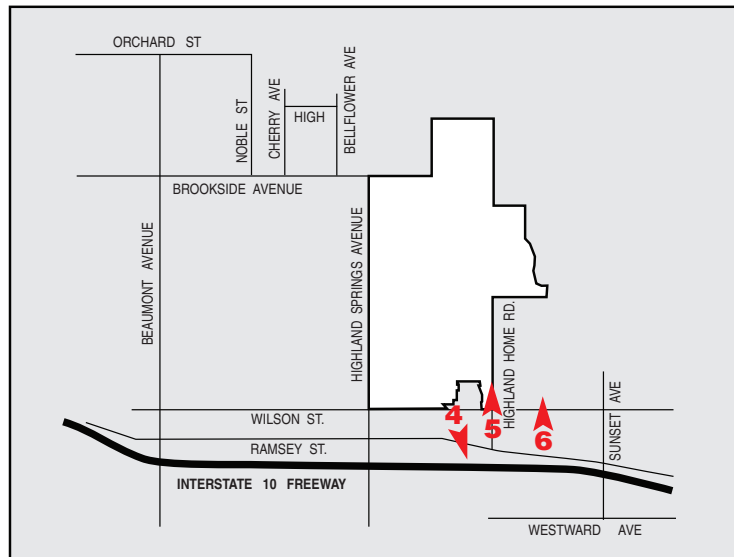


PHOTO INDEX MAP



6 Looking north along Omar Street

SOURCE: RBF Consulting, site visit conducted on August 26, 2010



NOT TO SCALE

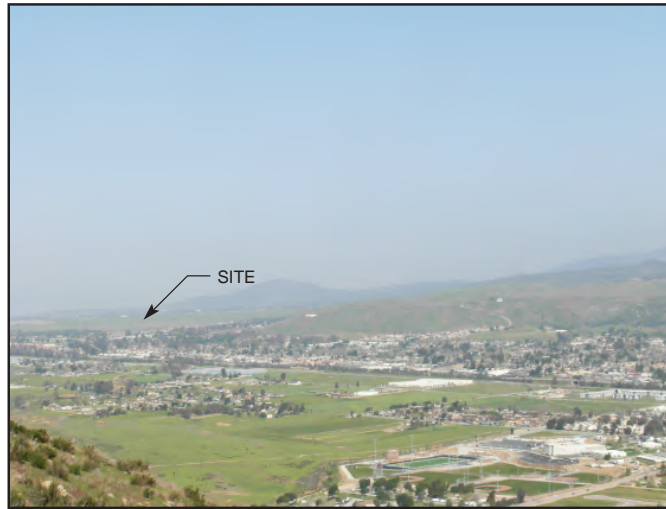
5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN

Off-Site Photographs 4 thru 6

AR 003718
EXHIBIT 4.1-1D

AR000322



7 Looking northwest from Hwy 243 toward project site



8 Looking northwest from Hwy 243 toward project site

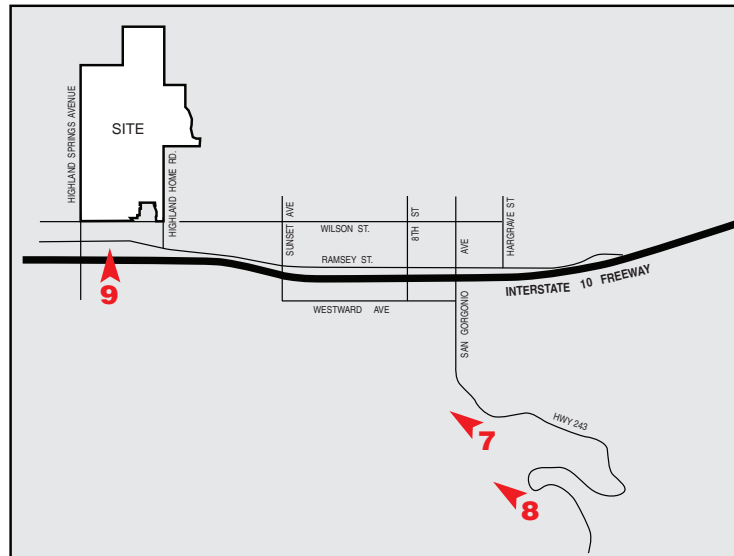


PHOTO INDEX MAP



9 Looking north toward project site from westbound Interstate 10 freeway

SOURCE: RBF Consulting, site visit conducted on March 18, 2011



NOT TO SCALE

5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN

Off-Site Photographs 7 thru 9

AR 003719
EXHIBIT 4.1-1E

AR000323

SECTION 4.2

AGRICULTURAL RESOURCES

4.2.1 INTRODUCTION

The purpose of this section is to analyze potential Project-related impacts associated with the conversion of agricultural land to non-agricultural use. Where needed, mitigation measures are recommended to avoid or lessen the significance of potential impacts. This section also discusses the potential conflicts between the proposed uses and ongoing agricultural activities in the vicinity of the Project site. Information presented in this section is based on site photographs and visits, the City of Banning General Plan and EIR, the most currently available reports from the California Department of Finance, California Department of Conservation, Riverside County Agricultural Production Report (2008), and the Riverside County General Plan and General Plan EIR. In 2010, the CEQA *Guidelines* were amended to change the title of the Agricultural Resources section and expanded its thresholds to include potential impacts on forest land and timberland. While these thresholds are shown in Section 4.2.3 (*Significance Threshold Criteria*) the Project site does not contain forest or timberland-related resources. Accordingly, such impacts are not addressed in this Section; refer to Section 7.0 (*Effects Found Not to Be Significant*).

4.2.2 EXISTING CONDITIONS

4.2.2.1 ENVIRONMENTAL SETTING

State of California

More than one-quarter of California's landmass is used for agricultural. Just over half of the 27.6 million acres of agricultural land is pasture and range and about 40 percent is cropland¹. Agriculture in California is large, diverse, complex, and dynamic. It generated nearly 36.6 billion in cash receipts in 2007. California has been the nation's top agricultural state in terms of cash receipts every year since 1948 and has gradually increased its share of U.S. farm cash receipts from 9.5 percent in 1960 to 12.8 percent in 2007. Including multiplier effects, California farms and closely related processing industries generate 7.3 percent of the State's private sector labor force and account for 5.6 percent of the State labor income (2002). For every \$1 billion in farm sales, there are 18,000 jobs created in the State, about 11,000 in the farm sector itself plus about 7,000 in other industries. Agricultural employment has been reduced as result of the current recession as well as by fluctuations in the availability of water for irrigation and the conversion of agricultural land to other developed uses. In 2009 the State's Employment Development Department (EDD) estimated that agriculture employed a seasonally adjusted

¹ Agricultural Issues Center, University of California Davis, *The Measure of California Agriculture*, August 2009, accessed June 28, 2010.

average of 385,066 people as compared to 390,900 in 2008 as estimated by EDD.² The California Department of Conservation, Farmland Mapping and Monitoring Program identifies lands that have agriculture value and maintains a statewide map of agricultural lands in its Important Farmlands Inventory (IFI). IFI classifies land based upon its productive capabilities, which is based on many characteristics, including fertility, slope, texture, drainage, depth, salt content and availability of water for irrigation. The state employs a variety of classification systems to determine the suitability of soils for agricultural use. The two most widely used systems are the Capability Classification System and the Storie Index. The Capability Classification System classifies soils from Class I to Class VIII based on their ability to support agriculture with Class I being the highest quality soil. The Storie Index considers other factors such as slope and texture to arrive at a rating.

As noted, in addition to soil suitability, other factors are used to determine the agricultural value of land including whether soils are irrigated, the depth of productive soil and its water-holding capacity, and physical and chemical characteristics of soils. Areas considered to have the greatest agricultural potential are designated as Prime Farmland or Farmland of Statewide Importance. Prime Farmland includes areas with irrigated Class I or Class II soil at least 40 inches deep with a water holding capacity of at least 4 inches, capable of producing sustainable high yield crops. Farmland of Statewide Importance is land other than Prime Farmland that has a good combination of physical and chemical characteristics but does not have the minimum soil depth and water holding capacity requirements. Other productive farmlands are classified as Unique Farmland or as Farmland of Local Importance. Unique Farmland is land other than Prime or Statewide Importance that supports high-value food and fiber crops. Farmland of Local Importance includes non-irrigated land used for dry farming and grazing that is either currently producing or has the capability for production, but does not meet the criteria established for Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Farmland of Local importance is more fully defined by each county's local advisory committee. Lands that have lesser agricultural potential are classified as Grazing Land, Urbanized, or Other. Other Land typically includes areas that are generally unsuitable for agriculture because of geographic or regulatory constraints.

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, allows local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. Landowners in return receive lower-than-normal property tax assessments, based upon farming and open space uses as opposed to full market value. Local governments receive an annual subsidy of property tax revenues from the state. Refer to additional discussion of the Williamson Act below.

² California Employment Development Department, Labor Market Information Division, *Detailed Agricultural Employment and Earnings Data*, 2009, www.edd.ca.gov, accessed June 25, 2010 and *California's Agricultural Employment Report 2008*, accessed June 25, 2010.

Riverside County

The County of Riverside has an agricultural industry valued at over one billion dollars (\$1,268,589,900) in 2009, and utilizes approximately 246,012 acres of county land³. The County represents 3 percent of the State's agriculture industry and ranks 12th among the other 58 agriculture counties. Seventy-nine percent (194,349 acres) of County's agricultural land is designated as "Prime Farmland", "Farmland of Statewide Importance", and "Unique Farmland"⁴. Overall the County's agricultural production values increased approximately 3 percent between 2007 and 2008, the last year for which statistics are currently available. Certain parts of the industry, however, have seen declines in value, most notably livestock and poultry (-5.3 percent), nursery crops (-15.4 percent) and tree and vine production (- 8.2 percent); however, overall the County has seen a substantial increase in agricultural production values since 1994.

Agriculture has remained economically viable in the County in spite of pressures such as increased agricultural land values, increased water cost, and compatibility problems with urban uses because of the area's climate, soils, and air quality.

Pursuant to State policy, the Riverside County has its own criteria for designating Farmland of Local Importance, which include: (1) soils that would be classified as Prime and Statewide but lack available irrigation water; (2) lands planted with dry-land crops of barley, oats, and wheat; (3) lands producing summer squash, okra, eggplant, radishes, watermelons or that are in permanent pasture (irrigated); (4) dairy lands including enclosed pasture of 10 acres or more; and (5) lands identified by city or county ordinance as Agricultural Zones or as subject to Williamson Act contracts.⁵

City of Banning

According to the City of Banning General Plan EIR (III-2), approximately 22 percent of the General Plan Study Area is developed. Residential land uses represent approximately 66 percent of the developed lands, dominated by rural residential single family dwelling units in the City limits and in the balance of the General Plan Study Area. Agricultural uses are accounted for under the land use designations of Ranch/Agriculture (1 du/10 acres), Ranch/Agriculture/Hillside (1 du/10 acres); Rural Residential (0-1 du/acre) and Rural Residential/Hillside uses, which allow for agricultural and ranching activities. These Rural Agricultural and Rural Residential uses account of approximately 1,203.1 acres in the City's

³ County of Riverside, Office of Agriculture, Agricultural Commissioner's Office, *Riverside County 2008 Agricultural Production Report*, 2008, <http://www.rivcoag.org/opencms/publications/>, accessed June 25, 2010.

⁴ Riverside County Integrated Project (RCIP), 2002.

⁵ California Department of Conservation, Farmland Mapping and Monitoring Program, *Farmland of Local Importance Definition* – *Riverside County* (2008), http://www.dera.saccounty.net/portals/0/docs/EnvDocs_Notices/200400961720090401114732.pdf, accessed 10/19/2010.

municipal boundaries and 5,550.6 acres in the combined Sphere of Influence and Planning Area. The agricultural acreage, with potential for use for either dry farming or ranching/grazing, accounts for approximately 28 percent of the total General Plan Study Area.⁶ The City's Very Low Density Residential land use designation (0-2 du/acre) permits private equestrian uses and grazing is not included in the above calculation.

Agricultural activity in the Banning area is not a major source of revenue and employs approximately 3 percent or less of the total Banning labor force. Since EDD includes farm workers, nursery workers; delivery truck drivers for produce and flower, horticulturists, landscapers, tree trimmers, and landscape maintenance personnel in this category, the percentage of the City's labor force actually involved in agriculture production is probably well under 3 percent. There are no migrant farm labor camps in or near Banning, nor is there significant agricultural activity in the City's planning area of the type that would attract a substantial number of migrant farm workers. Within the General Plan Study Area, agricultural uses include a fruit orchard located on the Banning Bench, and privately owned equestrian estates used for horse grazing, particularly on the south side of the planning area. These lands are not designated for open space, but rather are ultimately planned for residential land uses.⁷

Based on information provided by Riverside County at the time the City's 2005 General Plan was written, there were currently three Williamson Act contracts in effect over approximately 3,500 acres in the planning area. Lands were identified in the City limits near the Banning Bench, in the northwest portion of the Planning Area between Highland Springs Avenue and Highland Home Road, and in the City's southerly Sphere of Influence, south of Westward Avenue. The Project site, located between Highland Springs Avenue and Highland Home Road, was one of these sites. The General Plan EIR (2005), however, does not identify agricultural uses on the Project site and, by the time the General Plan EIR was certified, all Williamson Act contracts on the Project site had been cancelled.

Conversion of farmland of various types to other uses within the Banning area is an ongoing process that is expected to continue into the future as marginal agricultural lands that are no longer in active agricultural use are developed pursuant to the City's General Plan.

Project Site

The Project site has historically been used for intermittent dry and irrigated farming and livestock grazing. The EIR prepared for the Deutsch Specific Plan indicates irrigation ceased in approximately 1981, while cultivation ceased completely around 1988⁸. Since acquiring the

⁶ City of Banning *Environmental Impact Report for the City of Banning Comprehensive General Plan and Zoning Ordinance*, Section III – Environmental Impacts and Mitigations, III-2, June, 2005.

⁷ City of Banning, *City of Banning Comprehensive General Plan (2005, Environmental Resources Element, Open Space*.

⁸ Deutsch Banning Specific Plan EIR, 1992, pp 47 (*Agriculture*).

property, Pardee Homes has allowed the use of the site for small scale, occasional cattle grazing under a private lease agreement with local rancher Gabriel Mendoza, which is expected to continue during the Project entitlement and CEQA review process. Limited small scale grazing activities on portions of the site not yet developed may continue while the Specific Plan site is incrementally developed.

Soils on the site consist of various types of sandy loam including those from the Hanford (HcA), Greenfield (GyA), Ramona (RaA), Gorgonio (GIC), Tujunga, and Terrace Escarpment soils series⁹. Sandy loams of the Hanford, Greenfield, Ramona, and Gorgonio series are considered prime agricultural soils by the State Department of Conservation.¹⁰

The EIR prepared and certified for the Deutsch Banning Specific Plan indicates that approximately 120 acres located at the southwester corner of the Project site were considered prime farmland by the State Department of Conservation in 1981, when the area was irrigated and actively cultivated. According to the previously stated criteria of the County of Riverside, sites comprised of soils that would be classified as Prime and of Statewide Importance, but which are not irrigated, could be classified as Farmland of Local Importance by the County and the State Department of Conservation.

According to the Deutsch Banning Specific Plan EIR (1992), the entire 1,552-acre project site was once under Agriculture Preserve (e.g., Williamson Act contract). At the time the Deutsch Banning Specific Plan EIR was written (1992), approximately 924 acres of land on the proposed Project site were within an Agricultural Preserve. The EIR noted that a Notice of Non-renewal was issued for this acreage in 1987 and that the land would be released (cancelled) from Agricultural Preserve status in 1997. The Deutsch Specific Plan EIR also indicates that of the remaining 628 acres within the Project site, approximately 200 acres of land previously under Agricultural Preserve contract had been canceled in the late 1970s and an additional 428 acres of Agricultural Preserve was canceled in 1985. Exhibit 10 of the Deutsch Specific Plan EIR indicates the location of Agricultural Preserve land canceled in the 1970s and in 1985, as well as the property that was still in Agricultural Preserve in 1992.

Each of the current Assessor's Parcel Numbers within the area of the Project site shown as Agricultural Preserve on Exhibit 10 was reviewed for current status in the Riverside County Land Information System database and with the State Department of Conservation. None of these databases indicate the current existence of Agricultural Preserve contracts on any of property located within the Project site, nor are there any Agricultural cases pending or listed for the Project site. The State's Department of Conservation database 2008 Important Farmland Map (September 2009) does not identify any portion of the Project site as containing farmland of

⁹ Deutsch Banning Specific Plan EIR, 1992, pp 51 (*Ground Stability*).

¹⁰ California Department of Conservation, *Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance – Riverside County*, http://www.conservation.ca.gov/dlrp/fmmp/pubs/soils/Documents/RIVERSIDE_ssurgo.pdf, accessed 10/19/2010.

Prime or Statewide Importance. Neither does the State identify any existing Williamson Act contracts on the Project site.¹¹ The County of Riverside Land Information System does not identify any existing Williamson Act contracts on the Project site, nor does it identify any pending Notice of Cancellation or Diminishment actions on any of the Assessors Parcels within the Project site.¹² Exhibit 4.2-1, *Farmland Map* depicts the site's farmland designations according to the California Department of Conservation Farmland Mapping and Monitoring Data (2008).¹³

4.2.2.2 REGULATORY FRAMEWORK

The Williamson Act

The *California Land Conservation Act*, also known as the *Williamson Act*, was adopted in 1965 in order to encourage the preservation of the state's agricultural lands and to discourage its conversion to urban uses. In order to preserve agricultural uses, this Act established an agricultural preserve contract procedure through which any county or city within the State taxes landowners of Agricultural Preserve contract land at a lower rate using a scale based on the actual use of the land for agricultural purposes, rather than its unrestricted market value. In return, the owners guarantee that these properties will remain in agricultural production for a 10-year period. This contract is renewed automatically unless a Notice of Non-Renewal is filed by the owner. In this manner, each agricultural preserve contract (at any given date) is always operable at least 9 years into the future.

The owner of the property may file a Notice of Non-Renewal, which will cause the contract to expire in 10 years. After the contract has expired, a landowner may apply to remove that property from an agricultural preserve through the filing of a Notice of Diminishment. The landowner also has the option of petitioning the Board of Supervisors for the cancellation of the contract. Cancellation of the contract involves payment of substantial cancellation fees.

Since 1998, another option within the Williamson Act program is the rescission process to cancel a Williamson Act contract and simultaneously dedicate a permanent agricultural conservation easement on other land. Pursuant to Government Code 51243, if a city annexes land under the Williamson Act contract, a city must secede to all rights, duties and powers of the county under the contract. A Local Agency Formation Commission (LAFCO) must notify the State Department of Conservation within 10 days of a city's proposal to annex land under contract.

¹¹ California Department of Conservation, Farmland Mapping and Monitoring Data Riverside County Important Farmland Map 2008 http://redirect.conservation.ca.gov/DLRP/fmmp/product_page.asp Accessed March 3, 2011

¹² County of Riverside Land Use Information System, <http://www3.tlma.co.riverside.ca.us/pa/rdis/viewer.htm>, accessed March 3, 2011. Community base map – Banning and Assessor's Parcel Numbers

¹³ California Department of Conservation, *Map of Western Riverside County Important Farmland 2008, Sheet 1 of 3*, ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/riv08_west.pdf, accessed 10/19/2010

County of Riverside Right-to-Farm Ordinance

Right-to-Farm Ordinances have been adopted by several California counties to protect farmers in established farming areas from legal action that new residents in nearby urban settings may take against nuisances associated with normal, day-to-day farming activities, such as odor, noise, and dust. Riverside County adopted a Right-to-Farm Ordinance (Ordinance 625.1) on March 18, 1986 (amended November 8, 1994). The ordinance states that agricultural activity, operating for more than three years, shall not become a nuisance to the public under changed conditions in or around the locality. While the County's Right-to-Farm Ordinance does not apply to projects in the City of Banning, which has adopted its own Municipal Code, the Right-to-Farm Ordinance incorporates policy and language that may be applied as a mitigation measure to projects within municipal boundaries, should conditions warrant.

City of Banning General Plan and Zoning Code

The City of Banning General Plan and Zoning Code (Title 17) provide for agricultural uses within several of its land use categories. No portion of the Project site is designated in the City's General Plan for agricultural use nor is the Project site zoned for any agricultural land use. The most proximate agriculturally zoned property is located adjacent to the east and is zoned for Ranch Agricultural (Hillside).

4.2.3 SIGNIFICANCE THRESHOLD CRITERIA

The criteria used to determine the significance of potential impacts related to agricultural resources are from the Initial Study checklist in Appendix G of the State CEQA Guidelines. The project would result in significant impact related to agricultural resources if it would:

- a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.*
- b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract.*
- c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). Refer to Section 7.0, Effects Found Not to be Significant.*
- d) *Result in the loss of forest land or conversion of forest land to non-forest use. Refer to Section 7.0, Effects Found Not to be Significant.*
- e) *Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.*

4.2.4 IMPACT ANALYSIS AND MITIGATION MEASURES

ANALYTIC METHOD

The previously certified Deutsch Specific Plan EIR addressed development of the Project site with up to 5,400 dwelling units. Impacts discussed below are generally consistent with the impacts described in the 1985 Deutsch Specific Plan EIR and subsequent EIR Update in 1993. This analysis has been updated to reflect the currently proposed Butterfield Specific Plan, including the off-site infrastructure and 21-acre unincorporated parcel with the exception of the changes in the status of then-existing Agricultural Preserve contracts, which has been updated by reference to the State Department of Conservation and County of Riverside Land Information System databases.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing local, State and federal regulations noted below will avoid or mitigate potential agricultural resource impacts. The following Project Design Features will also reduce, avoid or off-set potentially adverse agricultural resource impacts:

- 1) The phased development of the Project site will allow small scale temporary grazing use to continue during a portion of the implementation phase of the Project.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.2-1: Conversion of Farmland

Threshold: *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

Determination: *Less than Significant*

The proposed Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the FMMP Program of the California Resources Agency (2008). Implementation of the proposed Specific Plan would, however, result in the conversion of approximately 1,500 acres of State-designated "Farmland of Local Importance" to non-agricultural uses. Cultivation of the site ceased in 1988. In terms of soils, the site remains suitable for dry farming and a portion of the site located at the northeast corner of Wilson Street and Highland Springs Avenue, which was once (prior to 1981) irrigated and classified as Prime Farmland by the State, could be irrigated again and used for that purpose; however, use of the site for agriculture would be inconsistent with the City's General Plan and Zoning Map. In addition, the presence of adjacent/proximate developed land uses (including residential

development) could make renewed farming on that portion of the site a nuisance due to potential use of pesticides and fertilizer and would also have an adverse impact on air quality due to the high levels of dust which farming could generate in this area. The Project site is not currently farmed and its only current agricultural use is for intermittent and limited cattle grazing. There is no Williamson Act contract covering any portion of the Project site. The issue of conversion of farmland was originally addressed in the EIR certified for the Deutsch Banning Specific Plan and found to be a less than significant impact. Since this Project is an amendment and restatement of the original Deutsch Specific Plan, the analysis and findings of the original certified EIR are incorporated by reference.

Impact 4.2-2: Conflicts with Existing Zoning or Williamson Act Contracts

Threshold: Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?

Determination: Less than Significant

As previously discussed none of the parcels that comprise the Project site are subject to Williamson Act contracts. The site is not zoned or General Plan designated for any agricultural use. Accordingly, impacts would be less than significant.

Impact 4.2-3: Other Environmental Changes

Threshold: Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Determination: Less than Significant

While the proposed Project will convert land designated as Farmland of Local Importance to a non-agricultural use, the site has not supported agricultural uses, apart from occasional livestock grazing since 1988 and, although property adjacent to the east of the Project site is zoned for Ranch Agricultural (Hillside), there is currently no agricultural activity on any adjacent or nearby property with the possible exception of occasional cattle grazing. The County of Riverside's Right to Farm Ordinance does not affect the Project site because the site is located within the municipal boundaries of the City of Banning. However, consistent with Right to Farm principles, all real estate transactions for residential and non-residential uses will include appropriate disclosure forms, as approved by the Community Development Director, indicating the historic and intended continued small scale, temporary livestock grazing, so as not to hinder ongoing grazing activities on the Project site; however, this temporary agricultural use contributes very little to the regional agricultural economy and the development of the Project would not directly or indirectly catalyze the conversion of additional farmland to urban

uses nor does the Project include any component that would adversely affect the quality or quantity of groundwater available for agricultural production elsewhere in the region; refer to Section 4.14, *Water Supply*, and 4.9, *Hydrology and Water Quality*, for a more detailed discussion of Project impacts on groundwater and surface water quality and water demand.

The scope of the proposed Project does not include any component that would adversely affect the quality or quantity of the ground water used for agricultural production elsewhere in the region.

Betterment:

The following measure is a *betterment*, intended to reduce potentially adverse effects or otherwise create positive benefits, but is not considered necessary as a “mitigation measure”.

AGRI -1 (betterment): As part of the required real estate disclosure process, the Project shall be conditioned to include a disclosure for all property purchases and leases, noting the historic and intended ongoing intermittent livestock grazing, with the intent to avoid or minimize future actions that would limit or preclude ongoing grazing on the Project site. Said real estate disclosures shall be reviewed and approved by the Community Development Director as part of any residential or non-residential site plan approval, and/or prior to any building permit issuance.

4.4.5 CUMULATIVE IMPACTS

Determination: Less than Significant

The geographic setting for this cumulative impacts analysis is Riverside County. The analysis utilizes the County of Riverside RCIP, the most current Riverside County Agricultural Production Report (2008), and the California Department of Conservation Farmland Mapping and Monitoring Program 2008 Field Report for western Riverside County. The analysis considers the significance of the contribution of the proposed Project to cumulative regional impacts on County agricultural land and agricultural production resulting from the conversion of farmland to urban uses. Conversion of agricultural land to urban uses is an ongoing public policy issue in California. Data from the California Department of Conservation indicate that between 1988 and 2002, about 734,000 acres of land have been converted to urban and built-up uses. The majority of the State’s agricultural land is located the Central Valley, which is comprised of the Sacramento and San Joaquin valleys. The Central Valley accounts for 69 percent of California’s cropland, but accounted for only 42 percent of the statewide cropland conversion between 1988 and 2002.

The rate of farmland conversion depends largely on population growth; California’s population increased by 75 percent between 1970 and 2002. For the year 2050, the California Department of

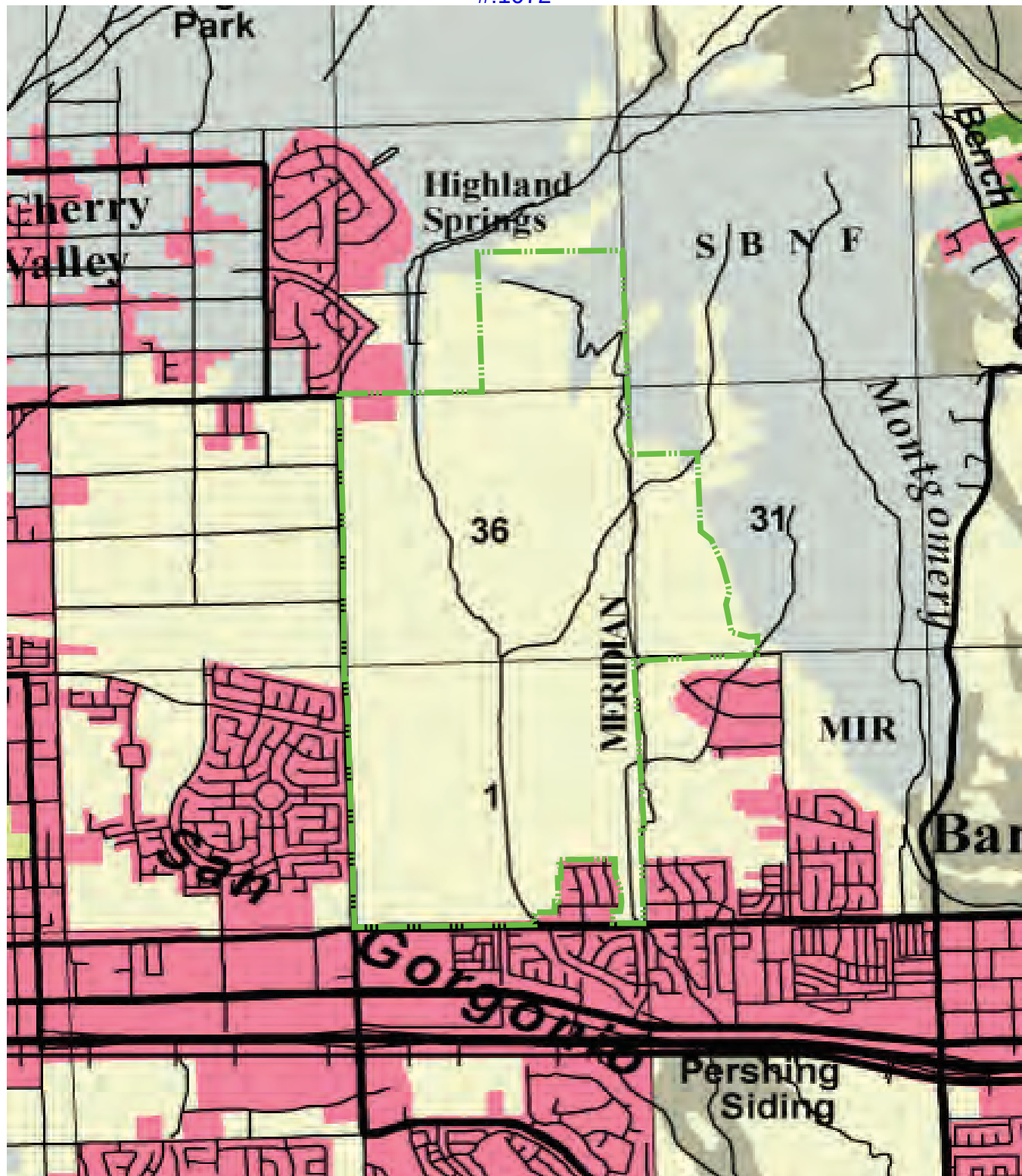
Finance projects a total State population increase that is 56 percent higher than in 2002. The County of Riverside's population has grown by 359 percent since 1970. However, in spite of the incredible population growth experienced in the County and the pressures that places on agricultural land uses, the County has seen an accelerating growth in the value of its agricultural production, though certain segments of the industry have seen substantial net declines. For example, in 1995, the County ranked 7th among California counties in terms of agricultural production. In 2008, the County dropped in rankings to 12th.

In 2005, the Riverside County Integrated Project (RCIP) estimated the number of acres of Riverside County land involved in agricultural uses at 266,926 acres. Of that total, 212,005 acres (79 percent) of farmland in the County is designated as "Prime", "Statewide Importance", or "Unique".¹⁴ Though considered "Farmland of Local Importance" by the State Department of Conservation, the Project site is located within the municipal boundaries of a growing City and has been planned for urban development since the 1980s. Though previously subject to Williamson Act contracts, these have since expired and the Project site is no longer in agricultural use, with the exception of small-scale temporary use for livestock grazing that contributes very little to the regional agricultural economy. Accordingly, while the conversion of farmland in western Riverside County, and in the Coachella Valley in particular, may have an adverse cumulative effect on the County's agricultural economy, the incremental loss of this Project site's potential as farmland would not be considered cumulatively considerable and would be less than significant.

4.4.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The impact of the proposed Project on Agricultural Resources would be less than significant.

¹⁴ Riverside County Integrated Project, 2002.



Farmland of Local Importance

Other Land

Urban & Built-up Land

Project Boundary

Source: California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program
Riverside County Important Farmland 2008 (Sheet 1 of 3) Map (www.conservation.ca.gov/dlrp/fmmp/pages/index.aspx), accessed 5/23/09

RBF
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NOT TO SCALE

5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

Farmland Map

AR 003731
EXHIBIT 4.2-1

AR000335

SECTION 4.3

AIR QUALITY

4.3.1 INTRODUCTION

This Section evaluates the potential air quality impacts associated with the Butterfield Specific Plan. The purpose is also to recommend mitigation measures to avoid or lessen the significance of potential impacts. Information presented in this Section is based upon the *City of Banning General Plan* (January 2006), the *Environmental Impact Report for the City of Banning Comprehensive General Plan and Zoning Ordinance* (June 2005), the *City of Banning Municipal Code* (codified through January 2010), and Air Quality Data provided by the California Air Resources Board. Land use and traffic data are based on the proposed Butterfield Specific Plan, and the Project's Traffic Impact Analysis (Appendix I). Refer to Appendix B, *Air Quality Data* for detailed air quality modeling assumptions and results.

4.3.2 EXISTING CONDITIONS

4.3.2.1 ENVIRONMENTAL SETTING

Physical Site Conditions

The Project site is currently vacant, gently sloping lands, periodically used for livestock grazing. The existing vegetative cover provides some protection from water and wind erosion, although site soil conditions and wind patterns have occasionally produced severe wind erosion across the site, typically depositing windblown sand to the west. As discussed further below, the site is bordered by existing residential and other sensitive receptors on the southwest, south and southeast property lines.

South Coast Air Basin

The South Coast Air Basin (Basin), in which the City of Banning is located, is characterized as having a "Mediterranean" climate (a semi-arid environment with mild winters, warm summers, and moderate rainfall). The Basin is a 6,600-square-mile area bounded by the Pacific Ocean to the west, and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The Basin's terrain and geographical location (i.e., a coastal plain with connecting broad valleys and low hills) determine its distinctive climate.

The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. The climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Basin is a function of the

area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of pollutants throughout the Basin.

Climate

The climate in the Basin is characterized by moderate temperatures and comfortable humidity, with precipitation limited to a few storms during the winter season (November through April). The average annual temperature varies little and averages 75 degrees Fahrenheit. However, with a less pronounced oceanic influence, the eastern inland portions of the Basin show greater variability in annual minimum and maximum temperatures. January is usually the coldest month at all locations, while July and August are usually the hottest months of the year. Although the Basin has a semi-arid climate, the air near the surface is moist due to the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought in by offshore winds. Periods with heavy fog are frequent, and low stratus clouds, occasionally referred to as "high fog," are a characteristic climate feature.

In the City of Banning, the climate is typically warm during summer when temperatures tend to be in the 90s and cool during winter when temperatures tend to be in the 60s. The warmest month of the year is August with an average maximum temperature of 97 degrees Fahrenheit, while the coldest month of the year is January with an average minimum temperature of 64 degrees Fahrenheit. Temperature variations between night and day tend to be moderate during summer with a difference that can reach 37 degrees Fahrenheit, and moderate during winter with a difference of approximately 24 degrees Fahrenheit. The annual average precipitation in Banning is 19.30 inches. Rainfall occurs most frequently in January, with an average rainfall of 4.18 inches.¹

Photochemical Smog

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain original or "primary" pollutants (mainly reactive hydrocarbons and oxides of nitrogen) react to form "secondary" pollutants (primarily oxidants). Since this process is time dependent, secondary pollutants can be formed many miles downwind from the emission sources. Because of the prevailing daytime winds and time-delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of Southern California.

¹ The Weather Channel, *Average Weather for Banning, CA*, <http://www.weather.com/outlook/health/airquality/wxclimatology/monthly/graph/USCA0066>, accessed July 27, 2010.

Temperature Inversions

Under ideal meteorological conditions and irrespective of topography, pollutants emitted into the air would be mixed and dispersed into the upper atmosphere. However, the Southern California region frequently experiences temperature inversions in which pollutants are trapped and accumulate close to the ground. The inversion, a layer of warm, dry air overlaying cool, moist marine air, is a normal condition in the southland. When the inversion is approximately 2,500 feet above sea level, the sea breezes carry the pollutants inland to escape over the mountain slopes or through the passes. At a height of 1,200 feet, the terrain prevents the pollutants from entering the upper atmosphere, resulting in a settlement in the foothill communities. Below 1,200 feet, the inversion puts a tight lid on pollutants, concentrating them in a shallow layer over the entire coastal basin. Smog in Southern California is generally the result of these temperature inversions combining with coastal day winds and local mountains to contain the pollutants for long periods of time, allowing them to form secondary pollutants by reacting with sunlight.

Monitored Air Quality Levels

The South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB) monitor the local ambient air quality from approximately 250 air monitoring stations located across the State. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Each monitoring station is located within a Source Receptor Area (SRA). The communities within a SRA have similar climatology and ambient air pollutant concentrations. The City of Banning is located within the Banning Airport SRA (SRA 29), and the nearest monitoring station is located within the City at 200 South Hathaway Street.

Air quality data from 2007 to 2009 for the Banning Airport Monitoring Station is provided in Table 4.3-1, *Local Air Quality Levels*. The Banning Airport Monitoring Station collects data for NO₂, O₃, PM₁₀, and PM_{2.5}. Therefore, data for CO and PM_{2.5} was obtained from the San Bernardino Monitoring Station, which is the next closest monitoring station to the Project area that monitors CO and PM_{2.5}. The following air quality information briefly describes the various types of pollutants monitored at the local stations.

Ozone. O₃ occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately ten miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone) layer extends upward from about ten to 30 miles and protects life on earth from the sun's harmful ultraviolet rays (UV-B). "Bad" ozone is a photochemical pollutant, and needs VOCs, NO_x and sunlight to form; therefore, volatile organic compounds (VOCs) and NO_x are ozone precursors. VOCs and NO_x are emitted from various sources throughout the City. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. High ozone concentrations can form over large regions

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when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

Table 4.3-1
Local Air Quality Levels

Pollutant	California Standard	Federal Primary Standard	Year	Maximum ³ Concentration	Days (Samples) State/Federal Std. Exceeded
1-hour Ozone (O ₃) ¹	0.09 ppm for 1 hour	NA ⁶	2007 2008 2009	0.129 ppm 0.149 0.133	28/1 57/10 55/1
8-hour Ozone (O ₃) ¹	0.07 ppm for 8 hours	0.075 ppm for 8 hours	2007 2008 2009	0.114 ppm 0.120 0.105	62/43 95/74 91/70
1-hour Carbon Monoxide (CO) ²	20 ppm for 1 hour	35 ppm for 1 hour	2007 2008 2009	3.70 ppm 2.40 2.50	0/0 0/0 0/0
8-hour Carbon Monoxide (CO) ²	9.0 ppm for 8 hour	9.0 ppm for 8 hour	2007 2008 2009	2.27 ppm 1.65 1.90	0/0 0/0 0/0
Nitrogen Dioxide (NO ₂) ¹	0.18 ppm for 1 hour	0.100 ppm For 1 hour	2007 2008 2009	0.079 ppm 0.079 0.056	0/NA 0/NA 0/NA
Fine Particulate Matter (PM _{2.5}) ^{2, 5}	No Separate Standard	35µ/m ³ for 24 hours	2007 2008 2009	72.1 µ/m ³ 43.5 37.8	NA/11 NA/3 NA/2
Particulate Matter (PM ₁₀) ^{1, 4, 5}	50 µ/m ³ for 24 hours	150µ/m ³ for 24 hours	2007 2008 2009	78.0 µ/m ³ 51.0 99.0	7/0 0/0 1/0

Source: Aerometric Data Analysis and Measurement System (ADAM), summaries from 2007 to 2009, <http://www.arb.ca.gov/adam>.

ppm = parts per million; PM₁₀ = particulate matter 10 microns in diameter or less; NM = not measured; µg/m³ = micrograms per cubic meter; PM_{2.5} = particulate matter 2.5 microns in diameter or less; NA = not applicable.

Notes:

1. Data collected from the Banning Airport Monitoring Station located at 200 South Hathaway Street, Banning, California 92220.
2. Data collected from San Bernardino Monitoring Station located at 24302 East 4th Street, San Bernardino, California 92410.
3. Maximum concentration is measured over the same period as the California Standards.
4. PM₁₀ exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
5. PM₁₀ and PM_{2.5} exceedances are derived from the number of samples exceeded, not days.
6. The Federal standard was revoked in June 2005.

Many respiratory ailments, as well as cardiovascular disease, are aggravated by exposure to high ozone levels. Ozone also damages natural ecosystems (such as forests and foothill plant communities) and damages agricultural crops and some man-made materials (such as rubber, paint and plastics). Societal costs from ozone damage include increased healthcare costs, the loss of human and animal life, accelerated replacement of industrial equipment and reduced crop yields.

Carbon Monoxide. CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions. At high concentrations, CO can reduce the oxygen-carrying capacity of the blood and cause headaches, dizziness, and unconsciousness.

Nitrogen Dioxide. NO_x are a family of highly reactive gases that are a primary precursor to the formation of ground-level O₃, and react in the atmosphere to form acid rain. NO₂ (often used interchangeably with NO_x) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO₂ occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations).

NO₂ can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO₂ concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO₂ may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM₁₀). PM₁₀ refers to suspended particulate matter, which is smaller than ten microns or ten one-millionths of a meter. PM₁₀ arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM₁₀ scatters light and significantly reduces visibility. In addition, these particulates penetrate the lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (SB 25).

Fine Particulate Matter (PM_{2.5}). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal PM_{2.5} standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the Environmental Protection Agency (EPA) announced new PM_{2.5} standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the U.S. Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal PM_{2.5} standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were adopted due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Reactive Organic Gases and Volatile Organic Compounds. Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including reactive organic gases (ROGs) and VOCs. Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Sensitive Receptors

Sensitive populations are more susceptible to the effects of air pollution than is the general population. Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics and CO are of particular concern. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The following types of people are most likely to be adversely affected by air pollution, as identified by CARB: children under 14, elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups are called sensitive receptors and include residential areas, hospitals, day-care facilities, elder-care facilities, elementary schools, and parks.

As previously mentioned, the Project area encompasses approximately 1,543 acres of vacant or undeveloped land. Sensitive receptors within the vicinity of the Project are presented in Table 4.3-2, *Sensitive Receptors*. Within the Project site, the Specific Plan is proposing the following sensitive land uses: schools; residential dwelling units; and parks.

**Table 4.3-2
Sensitive Receptors**

Type	Name	Distance from Project Site (feet) ¹	Direction from Project Site
Residential	Residential Uses	54	South
		105	East
		175	West
		418	Southeast
		808	Northwest
Hotels/Motels	Hampton Inn & Suites	1,740	South
	Highland Springs Resort	1,880	West
Schools	Pass Christian Pre-School	96	South
	Sundance Elementary School	2,030	West
Churches	First Assembly of God	96	South
	Highland Springs Fellowship	96	South
	Church of Jesus Christ of Latter Day Saints	170	South
	Fountain of Life Church	2,400	East
	Mountain Avenue Baptist Church	2,420	East
Hospitals	Cherry Valley Health Care	150	South
	San Gorgonio Memorial Hospital	290	South
Note: 1 – Distances are measured from the exterior Project boundary only and not from individual construction projects/areas within the interior of the Project site. Source: Google Earth 2010.			

4.3.2 REGULATORY FRAMEWORK

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) is responsible for implementing the Federal Clean Air Act (FCAA), which was first enacted in 1955 and amended numerous times after. The FCAA established Federal air Quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for “criteria” pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are O₃, CO, NO₂ (which is a form of NO_x), SO₂ (which is a form of sulfur oxides SO_x), PM₁₀, PM_{2.5}, and Pb; refer to Table 4.3-3, *National and California Ambient Air Quality Standards*.

California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 4.3-3, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide, and sulfates. The CCAA, which was approved in 1988, requires that each local air district prepare and maintain an air quality management plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for preparation of the State Implementation Plan (SIP) for the State of California.

State Air Toxics Program

Toxic air contaminants are another group of pollutants of concern in Southern California. There are hundreds of different types of toxic air contaminants, with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle engine exhaust. Public exposure to toxic air contaminants can result from emissions from normal operations, as well as accidental releases of hazardous materials during upset spill conditions. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

California regulates toxic air contaminants through its air toxics program, mandated in Chapter 3.5 (Toxic Air Contaminants) of the Health and Safety Code (Health and Safety Code Section 39660 et seq.) and Part 6 (Air Toxics "Hot Spots" Information and Assessment) (Health and Safety Code Section 44300 et seq.). CARB, working in conjunction with the State Office of Environmental Health Hazard Assessment, identifies toxic air contaminants. Air toxic control measures may then be adopted to reduce ambient concentrations of the identified toxic air contaminant to below a specific threshold, based on its effects on health, or to the lowest concentration achievable through use of best available control technology (BACT) for toxics. The program is administered by CARB. Air quality control agencies, including the SCAQMD, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by CARB. The SCAQMD established Rules 1401 and 1402 to reduce air toxic exposures from new and existing stationary sources, respectively. Additionally, the SCAQMD has adopted State Air Toxic Control Measures pertaining to the emission of perchloroethylene from dry cleaning operations (AQMD Rule 1421) as well as the National Emission Standards for Hazardous Air Pollutants (NESHAP).

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**Table 4.3-3
National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California ¹		Federal ²	
		Standard ³	Attainment Status	Standards ⁴	Attainment Status
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	Nonattainment	NA ⁵	NA ⁵
	8 Hours	0.07 ppm (137 µg/m ³)	Unclassified	0.075 ppm (147 µg/m ³)	Nonattainment
Particulate Matter (PM ₁₀)	24 Hours	50 µg/m ³	Nonattainment	150 µg/m ³	Nonattainment
	Annual Arithmetic Mean	20 µg/m ³	Nonattainment	NA ⁶	Nonattainment
Fine Particulate Matter (PM _{2.5})	24 Hours	No Separate State Standard		35 µg/m ³	Unclassified
	Annual Arithmetic Mean	12 µg/m ³	Nonattainment	15 µg/m ³	Nonattainment
Carbon Monoxide (CO)	8 Hours	9 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Attainment
	1 Hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Attainment
Nitrogen Dioxide (NO ₂) ⁷	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	NA	53 ppb (100 µg/m ³)	Attainment
	1 Hour	0.18 ppm (339 µg/m ³)	Attainment	100 ppb (188 µg/m ³)	NA
Lead (Pb)	30 days average	1.5 µg/m ³	Attainment	N/A	NA
	Calendar Quarter	N/A	NA	1.5 µg/m ³	Attainment
Sulfur Dioxide (SO ₂)	24 Hours	0.04 ppm (105 µg/m ³)	Attainment	N/A	Attainment
	3 Hours	N/A	NA	N/A	Attainment
	1 Hour	0.25 ppm (655 µg/m ³)	Attainment	75 ppb (196 µg/m ³)	NA
Visibility-Reducing Partides	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Unclassified		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)	Unclassified		
Source: California Air Resources Board and U.S. Environmental Protection Agency, September 8, 2010.					
µg/m ³ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable					

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1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter-PM₁₀ and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. In 1990, the California Air Resources Board (CARB) identified vinyl chloride as a toxic air contaminant, but determined that there was not sufficient available scientific evidence to support the identification of a threshold exposure level. This action allows the implementation of health-protective control measures at levels below the 0.010 ppm ambient concentration specified in the 1978 standard.
2. National standards (other than ozone, particulate matter and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. EPA also may designate an area as *attainment/unclassifiable*, if: (1) it has monitored air quality data that show that the area has not violated the ozone standard over a three-year period; or (2) there is not enough information to determine the air quality in the area. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5. The Federal 1-hour ozone standard was revoked on June 15, 2005 in all areas except the 14 8-hour ozone nonattainment Early Action Compact (EAC) areas.
6. The Environmental Protection Agency revoked the annual PM₁₀ standard in 2006 (effective December 16, 2006).
7. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).

South Coast Air Quality Management District

The SCAQMD is one of 35 air quality management districts that have prepared Air Quality Management Plans to accomplish a five-percent annual reduction in emissions. *The 2007 Air Quality Management Plan for the South Coast Air Basin* (2007 AQMP) relies on a multi-level partnership of governmental agencies at the Federal, State, regional, and local level. The 2007 AQMP proposes policies and measures to achieve Federal and State standards for improved air quality in the Basin and those portions of the Salton Sea Air Basin (formerly named the Southeast Desert Air Basin) that are under the SCAQMD jurisdiction.

The Basin is currently in non-attainment for Ozone and particulate matter. The 2007 AQMP states that “the overall control strategy for this Final Plan is designed to meet applicable federal and state requirements, including attainment of ambient air quality standards. The focus of the Plan is to demonstrate attainment of the federal PM_{2.5} ambient air quality standard by 2015 and the federal 8-hour ozone standard by 2024, while making expeditious progress toward attainment of state standards. The proposed strategy, however, does not attain the previous federal 1-hour ozone standard by 2010 as previously required prior to the recent change in federal regulations.”

The 2007 AQMP includes new information on key elements such as:

- Current air quality;
- Improved emission inventories, particularly significant increases in mobile source emissions;
- An overall control strategy comprised of SCAQMD, State, and Federal Stationary and Mobile Source Control Measures, and the Southern California Association of Governments Regional Transportation Strategy and Control Measures;
- New attainment demonstration for PM_{2.5} and O₃;
- Milestones to the Federal Reasonable Further Progress Plan; and
- Preliminary motor vehicle emission budgets for transportation conformity purposes.

In addition to the 2007 AQMP and its rules and regulations, the SCAQMD published the *CEQA Air Quality Handbook*.² The *CEQA Air Quality Handbook* provides guidance to assist local government agencies and consultants in developing the environmental documents required by CEQA. With the help of the *CEQA Air Quality Handbook*, local land use planners and other consultants are able to analyze and document how proposed and existing projects affect air quality and should be able to fulfill the requirements of the CEQA review process. The SCAQMD is in the process of developing an *Air Quality Analysis Guidance Handbook* to replace the current *CEQA Air Quality Handbook*.

Southern California Association of Governments (SCAG)

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SCAG serves as the Federally-designated metropolitan planning organization for the Southern California region and is the largest metropolitan planning organization in the United States. With respect to air quality planning, SCAG has prepared the *Regional Comprehensive Plan and Guide*, which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation control portions of the 2007 AQMP. SCAG is responsible under the FCAA for determining conformity of projects, plans, and programs with the AQMP.

² Approved by the South Coast Air Quality Management District Governing Board in 1993.

4.3.3 SIGNIFICANCE THRESHOLD CRITERIA

Air quality impacts due to the project within SCAQMD are assessed using methodologies identified in *CEQA Air Quality Handbook* prepared and revised by SCAQMD. Under CEQA, the SCAQMD reviews projects within its jurisdiction as a lead agency, a responsible agency and a commenting agency. The SCAQMD reviews projects to ensure that they will not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan. The *CEQA Air Quality Handbook* provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development in excess of the established thresholds, as outlined in Table 4.3-4, *SCAQMD Emission Thresholds*, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

Table 4.3-4
SCAQMD Emissions Thresholds

Phase	Pollutant (lbs/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction	75	100	550	150	150	55
Operational	55	55	550	150	150	55
Source: SCAQMD, <i>CEQA Air Quality Handbook</i> , page 6-1, April 1993.						
ROG = reactive organic gases NO _x = nitrogen oxides PM _{2.5} = particulate matter less than 2.5 microns CO = carbon monoxide SO _x = sulfur oxides PM ₁₀ = particulate matter less than 10 microns						

Additionally, the SCAQMD criterion recommends performing a CO hotspot analysis when a project increases the volume to capacity ratio (also called the intersection capacity utilization) by 0.02 (2 percent) for any intersection with an existing level of service (LOS) D or worse.

The environmental analysis in this section relative to air quality is patterned after the Initial Study Checklist recommended by the CEQA Guideline Appendix G, as amended, and used by the City of Banning in its environmental review process. The issues presented in Appendix G have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant air quality impact if it causes one or more of the following to occur:

- a) Violate any air quality standard or contribute substantially to an existing or projected air quality violation)

- b) Expose sensitive receptors to substantial pollutant concentrations;
- c) Conflict with or obstruct implementation of the applicable air quality plan;
- d) Creation of objectionable odors affecting a substantial number of people (also refer to Section 9.0, *Effects Found Not To Be Significant*); and/or
- e) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

4.3.4 IMPACT ANALYSIS AND MITIGATION

ANALYTICAL METHOD

The air quality analysis uses methodology recommended by SCAQMD, including quantitative estimates of construction and operational emissions using the URBEMIS2007 and BREEZE ROADS models and comparing these emissions to regional construction thresholds established by the SCAQMD. As noted above, the previously approved the Deutsch Specific Plan and certified Deutsch Specific Plan EIR addressed development of the Project site with up to 5,400 dwelling units. This analysis has been updated to reflect the currently proposed Butterfield Specific Plan, including the off-site infrastructure and 21-acre unincorporated parcel.

The Project's impacts are analyzed at full Project build-out and in the Interim Phase between the site's initial grading and full build-out. In addition, long-term and construction phase impacts are analyzed for both on-site and off-site activity, including installation of off-site infrastructure.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing local, State and federal regulations noted above will avoid or mitigate potential impacts related to air quality. The following Project Design Features will also reduce, avoid or offset potentially adverse impacts:

- 1) The Project is proposed to be phased, with the initial Phase IA grading limited to the area necessary to achieve mass balancing and proper drainage of the overall property, leaving approximately 40 percent (over 500 acres) of the site in its current condition until such time the remaining phases begin to develop. This phased development will reduce the overall area being disturbed at any one time, and will reduce the overall annual grading emissions.
- 2) Project design features incorporate applicable recommendations from the Attorney General and CARB Scoping Plan, as discussed in Section 4.5, *Climate Change*. These

measures will not only reduce greenhouse gas emissions, but will also reduce criteria pollutant emissions of the Project.

- 3) The Project's water supply sources are focused first on local supplies, which will reduce reliance upon imported water, thereby reducing air emissions associated with pumping and delivering the water to the site.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.3-1: Air Quality Standards

Threshold: *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Determination: *Significant and Unavoidable*

Short-Term Construction Emissions

Implementation of the Specific Plan would facilitate development of various residential, commercial/office, school, and open space uses.³ Development of the Specific Plan would occur within five phases, over approximately a 30-year time period; refer to Exhibit 3.0-14, *Conceptual Phasing Plan*, for a visual depiction of the construction phasing.

Fugitive Dust

Construction activities result in fugitive dust (PM₁₀ and PM_{2.5}) emissions that may have a substantial, temporary impact on local air quality. Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations and weather conditions. Dust (PM₁₀) poses a serious health hazard alone or in combination with other pollutants. Graded soils would be exposed throughout the approximately 30 year construction period and would present air quality concerns to off-site and future on-site sensitive receptors.

Fine Particulate Matter (PM_{2.5}) is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gasses such as NO_x and SO_x combining with ammonia. PM_{2.5} components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations.

As shown below, Project construction would exceed SCAQMD fugitive dust emission thresholds in Phase 3. Mitigation measures noted below would substantially reduce, but not

³ The trip generation table within the *Butterfield Specific Plan Traffic Impact Analysis*, prepared by LSA Associates, Inc. (September 15, 2010) includes 549,000 square feet of commercial uses and 200,000 square feet for school uses.

eliminate this temporary impact. Also refer to the conclusion and mitigation discussion following Table 4.3-9.

The fugitive dust emission levels estimated by URBEMIS2007 are based on soil disturbance activities and from entrained road dust sources. When detailed grading plans are unavailable, the recommended setting for the URBEMIS model is to apply 0.22 tons/acre-month (average conditions). The Midwest Research Institute has derived a value of 0.11 tons/acre/month, which converts to 10 pounds per day, assuming 22 workdays per month. The California Air Resources Board review has reviewed this factor and concluded that it represents PM₁₀ emissions with watering. Consequently, ARB concludes that 20 pounds per acre day is more appropriate for unmitigated fugitive dust conditions.⁴

The mitigated PM₁₀ and PM_{2.5} emissions levels are achieved by implementation of the mitigation included in URBEMIS2007 and as typically required by the SCAQMD (Rule 403). These fugitive dust mitigation measures include: replace ground cover on disturbed areas quickly, water exposed surfaces twice daily, reduce speed on unpaved roads to 15 miles per hour (mph), and proper loading/unloading of mobile and other construction equipment; also refer to Mitigation Measure AQ-1.

The percent reductions achieved by implementation of the mitigation measures have been quantified in URBEMIS2007. Replace ground cover on disturbed areas and water exposed surfaces twice daily results in a 5 percent and 55 percent reduction of fugitive dust emissions from soil disturbance activities, respectively. Proper loading/unloading of mobile and other construction equipment results in a 69 percent reduction of fugitive dust from disturbance activities. Reducing speed on unpaved roads to less than 15 miles per hour results in a 44 percent reduction of fugitive dust emissions from entrained road dust.⁵

Naturally Occurring Asbestos

Pursuant to guidance issued by the Governor's Office of Planning and Research, State Clearinghouse, lead agencies are encouraged to analyze potential impacts related to naturally occurring asbestos (NOA). Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986.

⁴ California Air resources Board, <http://www.arb.ca.gov/ei/areasrc/fullpdf/full7-7.pdf>, accessed May 16, 2011.

⁵ Reduction percentages for fugitive dust and emissions factors have been prepared for the SCAQMD by the Midwest Desert Research Institute. *Midwest Research Institute, Improvement of Specific Emission Factors (BACM Project No. 1) Final Report Prepared for the South Coast AQMD*, November 14, 1995.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed.

Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties of the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (dated August 2000), the proposed Project is not located in an area where NOA is likely to be present. Therefore impacts involving release of NOA are not anticipated.

Exhaust

Exhaust emissions would be generated by the operation of vehicles and equipment on the construction site, such as tractors, dozers, backhoes, cranes, and trucks. The majority of construction equipment and vehicles would be diesel powered, which tends to be more efficient than gasoline-powered equipment. Diesel-powered equipment produces lower carbon monoxide and hydrocarbon emissions than gasoline equipment, but produced greater amounts of NO_x, SO_x, and particulates per hour of activity. The transportation of equipment and materials to and from the site, as well as construction workers traveling to and from the site, would also generate vehicle emissions during construction. As shown below, only NO_x emission thresholds would be exceeded, and then only during the initial Phase I mass grading stag. Recommended mitigation measures would substantially reduce but not completely offset this potential impact. Also refer to the conclusion and mitigation discussion following Table 4.3-9, which notes that the EIR construction emission estimates are highly conservative, and likely substantially overstate actual anticipated emissions. In addition, Section 4.5, *Climate Change*, includes additional mitigation measures that will also reduce Project construction-related emissions discussed in this section.

Grading/Hauling

Future development facilitated by the proposed Project would require the cut and fill of on-site soils. Cut and fill would be balanced on the Project site, and no export would be required. Although balanced cut and fill activities may create additional dust and PM₁₀ and PM_{2.5}, they would be mitigated to less than significant levels through implementation of standard dust control practices required as part of the grading permit (periodic site watering and periodic street sweeping). Sand would be imported to the Project site for construction of the proposed golf course, as well as clay for construction of the golf course and Project water features. As summarized above and shown below, grading-related emissions will exceed fugitive dust and exhaust emission thresholds during Phase 3.

Machine Guided Grading. As deemed appropriate based on site conditions and supply of machinery, global positioning system (GPS) guided grading would also be performed (referred to as “machine guided grading”). GPS-based earthmoving systems use satellite data to compute the positions of GPS antennas mounted on construction equipment. Project-specific design information is loaded into an onboard computer that compares the exact position of the earthmover's blade with design coordinates and guides the equipment accordingly. The generated data can be used to drive fully automated blade control, or to guide a human operator by displaying grading information on an in-cab screen. This type of grading equipment reduces the duration of grading, minimizes unnecessary grading, and therefore reduces fuel consumption during the grading phase.⁶ However, to be conservative, the emissions estimates presented below (in Tables 4.3-5 through 4.3-9) do not account for machine-guided grading.⁷

Project Development and Phasing

Development within the Project site would be constructed in five main phases over an estimated 30-year period of time, with an estimated 180 dwelling units to be developed per year on average. Mass grading of the Project site is anticipated involving four main phases, combining development Phases 1 and 2. Development would occur as appropriate levels of infrastructure and any required improvements are provided.

⁶ “Building Information Modeling and Integrated Project Delivery”, AEP 2010 Conference, March 2010, Ron Moreno, PE, PLS.

⁷ This mitigation measure will be implemented by Pardee in consultation with the respective grading contractor(s). Emission reductions are not quantified, as this reduction measure has not received formal SCAQMD review to verify appropriate emission reduction credits. In addition, the actual emissions reductions vary with each project depending on the equipment used, availability of GPS machinery, and other factors.

Phase 1

Within Phase 1, just over half (825 acres) of the proposed Project would be mass-graded. The entire golf course and those planning areas (PAs) within the southwestern corner of the proposed Project would be developed. The areas include PAs 1A, 1B, 1C, 2 through 8, 17 through 19, 22 through 27, 35, 38, 39, and 71. A detention basin would be constructed in PA 71 where Smith Creek flows into the Project area at the north. The Smith Creek's watercourse would be realigned into the golf course area. Drainage improvements within PA 19 would be built to safely transmit accumulated upstream and Project-originated drainage flows to the existing Smith Creek Channel culvert southeast of Butterfield, south of Wilson Street. Phase 1 would also include the installation of infrastructure facilities needed to support the phase, including on-site and off-site water, recycled water, sewer pipelines, and utility lines. Project entry roadways extending from the South Loop Collector Street to the west and south would be constructed. Also, the extent of "F" Street adjacent to the golf course, as well as the Phase 1 adjacent portions of Highland Springs Avenue (south of "F" Street) and of Wilson Street would be built.

Table 4.3-5, *Phase 1 Construction Air Emissions*, provides a summary of construction emissions from Phase 1. Phase 1 would consist of 825 acres graded, and construction of 830 single-family dwelling units, 253.9 acres of golf course, 20.8 acres of parkland, and approximately 549,000 square feet of commercial building space⁸. Grading for the 825 acres would last approximately 18 months, while building activities would also take approximately 18 months. Grading emissions in Table 4.3-5 account for both original mass grading and fine pad grading activities. Earthwork on the project site would be balanced and total volumes have not yet been determined. Therefore, the URBEMIS2007 emissions defaults have been utilized for earthwork. It should be noted that the URBEMIS2007 defaults provide a conservative emission estimate for earthwork activities. As seen in Table 4.3-5, Phase I emissions would exceed the NO_x, CO, and ROG thresholds.

⁸ Commercial square footage is based on the trip generation table within the *Butterfield Specific Plan Traffic Impact Analysis*, prepared by LSA Associates, Inc. (December 22, 2010).

Table 4.3-5
Phase 1 Construction Air Emissions

Emissions Source	Pollutant (pounds/day) ^{1, 2, 3}					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
PHASE 1^{4, 5}						
2012 (Grading)						
Unmitigated Emissions	43.97	383.93	188.54	0.01	616.23	140.20
Mitigated Emissions	43.97	319.87	188.54	0.01	110.80	34.64
SCAQMD Thresholds	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
2013 (Grading, Trenching, Paving)						
Unmitigated Emissions	42.46	360.15	177.61	0.02	615.10	139.16
Mitigated Emissions	42.46	319.87	177.61	0.02	109.67	33.61
SCAQMD Thresholds	75	100	550	150	150	55
Is Threshold Exceeded?	No	Yes	No	No	No	No
2014 (Paving, Building)						
Unmitigated Emissions	25.36	98.43	570.98	0.90	10.47	7.18
Mitigated Emissions	25.36	62.38	570.98	0.90	10.47	7.18
SCAQMD Thresholds	75	100	550	150	150	55
Is Threshold Exceeded?	No	No	Yes	No	No	No
2015 (Building, Architectural Coating)						
Unmitigated Emissions	344.70	89.51	533.39	0.90	10.14	6.87
Mitigated Emissions ⁶	310.25	5.80	533.39	0.90	10.14	6.87
SCAQMD Thresholds	75	100	550	150	150	55
Is Threshold Exceeded?	Yes	No	No	No	No	No
ROG = reactive organic gases; NO _x = nitrogen oxides; CO = carbon monoxide; SO ₂ = sulfur dioxide; PM ₁₀ = particulate matter less than 10 microns; PM _{2.5} = particulate matter less than 2.5 microns.						
Notes:						
1. Emissions were calculated using the URBEMIS 2007 version 9.2.4 Computer Model, as recommended by the SCAQMD. The reduction/credits for construction emission mitigations are based on mitigation included in the URBEMIS 2007 version 9.2.4 Computer Model and as typically required by the SCAQMD (Rule 403 and Rule 1113). The mitigation includes the following: replace ground cover on disturbed areas as quickly as possible, water exposed surfaces twice daily, proper loading/unloading of mobile and other construction equipment, and the use of low ROG coatings. Mitigated NO _x emissions also account for implementation of Mitigation Measure AQ-5 which requires the use of EPA certified off-road equipment. NO _x reductions are based on the percentage reductions identified in SCAQMD Table I – CARB and EPA Off-Road Compression-Ignition (Diesel) Engine Standards (http://www.arb.ca.gov/msprog/ordiesel/documents/Off-Road_Diesel_Std.xls , accessed May 10, 2011), and Table II – Off-Road Engine Emission Rates and Comparison of Uncontrolled to Tiered Rates and Tiered to Tiered Rates (http://www.aqmd.gov/ceqa/handbook/mitigation/offroad/MM_offroad.html , accessed May 10, 2011).						

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2. Note that the URBEMIS 2007 model has been found to overestimate diesel emissions from construction equipment, as it does not account for various rules and regulations such as the Portable Equipment Airborne Toxic Control Measure (ATCM), Transportation Refrigeration Units (TRU) ATCM, Red/Green Sticker Program, Carl Moyer Program, In-use Off-road Diesel Vehicle Regulation, and Local Rules (Sierra Research, Inc., *Emissions from Diesel-Fueled Non-Road Equipment in California*, April 19, 2010). Therefore, actual emissions may be lower than those presented above. However, the URBEMIS 2007 modeled emissions as presented is the suggested method of emissions quantification by CARB and the SCAQMD.
3. Refer to Appendix B, Air Quality Data, for assumptions used in this analysis.
4. Phase 1 includes construction of 830 single family dwelling units and 549,000 square feet of commercial uses. Commercial square footage is based on the trip generation table within the *Butterfield Specific Plan Traffic Impact Analysis*, prepared by LSA Associates, Inc. (December 22, 2010).
5. Grading activities would occur over an approximate 18 month period, trenching would occur for 1 month, paving would occur for 6 months, building would occur for 18 months, and architectural coatings would occur for 3 months.
6. CARB Certified Tier 4 equipment would be required post-2015 per Mitigation Measure AQ-7.

Phase 2

Within Phase 2, the PAs within the southeastern corner of the proposed Project would be developed, over an approximately three year time period. These areas include PAs 9 through 16, 20, 21, 28 through 33, 36 and 37. The South Loop Collector's Street's eastern half would be completed as needed with Phase 2. The Project entry roadways extending northward and eastward from the South Loop Street would be constructed. Also, the remaining extent of F Street from the golf course edge to Highland Home Road along with the Phase 2 adjacent portion of Highland Home Road south of F Street would be constructed. Table 4.3-6, *Phase 2 Construction Air Emissions*, provides a summary of construction emissions from Phase 2. It should be noted that grading for the Phase 2 planning areas was conducted in Phase 1 and the mass and fine grading is included in the 825 acres analyzed above. Phase 2 would consist of construction of up to 1,713 dwelling units, 32.2 acres of parkland, and 100,000 square feet of school facilities space⁹. As seen in Table 4.3-6, 2018 emissions would exceed the ROG thresholds due to the application of architectural coatings, despite implementation of Mitigation Measure AQ-3, which requires the use of low ROG paint and low emissions application methods (i.e., compliance with SCAQMD Rule 1113).

Phase 3

Within Phase 3, the remaining PAs between Brookside Avenue, Highland Home Road, and F Street within the northwestern corner of the Project area would be developed, over an estimated 12 year time period. The areas include PAs 34, 40 through 42, 43, 44 through 49, 53 through 59, 62 through 66, and 72. The entirety of the North Loop Collector Street would be built. Phase 3 adjacent portions of Highland Springs Avenue north of F Street and Brookside Avenue and Highland Home Road, north of F Street and east of Highland Springs Avenue, would also be constructed. Table 4.3-7, *Phase 3 Construction Air Emissions*, provides a summary of construction

⁹ The trip generation table within the *Butterfield Specific Plan Traffic Impact Analysis*, prepared by LSA Associates, Inc. (December 22, 2010) includes 549,000 square feet of commercial uses and 200,000 square feet for school uses.

emissions from Phase 3. Phase 3 would consist of 429 acres graded, and construction of up to 2,042 dwelling units and 11.8 acres of parkland. As seen in Table 4.3-7, 2019 emissions would exceed the PM₁₀ and PM_{2.5} thresholds; 2030 emissions would exceed the ROG thresholds.

Phase 4

Within Phase 4, the PAs to the east of Highland Home Road would be developed. The areas include PAs 50, 51, 52, and 67. Table 4.3-8, *Phase 4 Construction Air Emissions*, provides a summary of construction emissions from Phase 4. Phase 4 would consist of 120 acres graded, and construction of 390 dwelling units, 1.7 acres of parkland, and 100,000 square feet of school facility space¹⁰. As seen in Table 4.3-8, emissions would not exceed the thresholds.

Phase 5

Within Phase 5, the PAs north of Brookside Avenue, within the northernmost extent of the Specific Plan would be developed, over an approximately three year time period. The areas include PAs 60 and 61. Table 4.3-9, *Phase 5 Construction Air Emissions*, provides a summary of construction emissions from Phase 5. Phase 5 would consist of 175 acres graded and construction of up to 412 dwelling units. As seen in Table 4.3-9, Phase 5 emissions would not exceed thresholds.

Table 4.3-6
Phase 2 Construction Air Emissions

Emissions Source	Pollutant (pounds/day) ^{1, 2}					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
PHASE 2^{5, 6}						
2016 (Trenching, Building)³						
Unmitigated Emissions	9.36	45.45	201.71	0.40	4.38	2.98
Mitigated Emissions ⁷	9.36	6.45	201.71	0.40	4.38	2.98
<i>SCAQMD Thresholds</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
<i>Is Threshold Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
2017 (Building)						
Unmitigated Emissions	8.57	41.16	188.72	0.40	4.18	2.80
Mitigated Emissions ⁷	8.57	6.45	188.72	0.40	4.18	2.80
<i>SCAQMD Thresholds</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>

¹⁰ The trip generation table within the *Butterfield Specific Plan Traffic Impact Analysis*, prepared by LSA Associates, Inc. (December 22, 2010) includes 549,000 square feet of commercial uses and 200,000 square feet for school uses.

Table 4.3-6 (continued)
Phase 2 Construction Air Emissions

Emissions Source	Pollutant (pounds/day) ^{1, 2}					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
<i>Is Threshold Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
2018 (Building, Architectural Coating)						
Unmitigated Emissions	210.94	37.35	176.63	0.40	4.01	2.63
Mitigated Emissions ⁷	189.86	6.45	176.63	0.40	4.01	2.63
SCAQMD Thresholds	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	<i>Yes</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
ROG = reactive organic gases; NO _x = nitrogen oxides; CO = carbon monoxide; SO ₂ = sulfur dioxide; PM ₁₀ = particulate matter less than 10 microns; PM _{2.5} = particulate matter less than 2.5 microns.						
Notes: 1. Emissions were calculated using the URBEMIS 2007 version 9.2.4 Computer Model, as recommended by the SCAQMD. The reduction/credits for construction emission mitigations are based on mitigation included in the URBEMIS 2007 version 9.2.4 Computer Model and as typically required by the SCAQMD (Rule 403 and Rule 1113). The mitigation includes the following: replace ground cover on disturbed areas quickly, water exposed surfaces twice daily, proper loading/unloading of mobile and other construction equipment, and the use of low ROG coatings. 2. Note that the URBEMIS 2007 model has been found to overestimate diesel emissions from construction equipment, as it does not account for various rules and regulations such as the Portable Equipment Airborne Toxic Control Measure (ATCM), Transportation Refrigeration Units (TRU) ATCM, Red/Green Sticker Program, Carl Moyer Program, In-use Off-road Diesel Vehicle Regulation, and Local Rules (Sierra Research, Inc., <i>Emissions from Diesel-Fueled Non-Road Equipment in California</i> , April 19, 2010). Therefore, actual emissions may be lower than those presented above. However, the URBEMIS 2007 modeled emissions as presented is the suggested method of emissions quantification by CARB and the SCAQMD. 3. Grading for the Phase 2 area would occur during Phase 1. 4. Refer to Appendix B, Air Quality Data, for assumptions used in this analysis. 5. Phase 2 includes construction of 788 single family dwelling units, 925 condominium/townhome units, and 100,000 square feet of elementary school. 6. Trenching activities would occur for 2 months, building would occur for 36 months, and architectural coatings would occur for 3 months. 7. CARB Certified Tier 4 equipment would be required post 2015 per Mitigation Measure AQ-7.						

Table 4.3-7
Phase 3 Construction Air Emissions

Emissions Source	Pollutant (pounds/day) ^{1, 2, 4}					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
PHASE 3^{5, 6}						
2019 (Grading)						
Unmitigated Emissions	11.12	79.56	47.71	0.00	3,084.92	646.46
Mitigated Emissions ⁸	11.12	25.45	47.71	0.00	488.85	104.30

Table 4.3-7 (continued)
Phase 3 Construction Air Emissions

Emissions Source	Pollutant (pounds/day) ^{1, 2, 4}					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
<i>SCAQMD Thresholds</i>	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	No	No	No	No	Yes	Yes
2020 (Grading, Trenching, Paving, Building)						
Unmitigated Emissions	22.48	34.80	183.41	0.48	4.33	2.72
Mitigated Emissions ⁸	22.48	3.31	183.41	0.48	4.33	2.72
<i>SCAQMD Thresholds</i>	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	No	No	No	No	No	No
2021 – 2029 (Building)³						
Unmitigated Emissions	5.72	27.38	136.30	0.48	4.15	2.56
Mitigated Emissions ⁸	5.72	6.81	136.30	0.48	4.15	2.56
<i>SCAQMD Thresholds</i>	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	No	No	No	No	No	No
2021 – 2031 (Architectural Coating)³						
Unmitigated Emissions	194.17	0.10	2.18	0.01	0.09	0.05
Mitigated Emissions	89.45	0.12	2.60	0.01	0.09	0.05
<i>SCAQMD Thresholds</i>	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	Yes	No	No	No	No	No
ROG = reactive organic gases; NO _x = nitrogen oxides; CO = carbon monoxide; SO ₂ = sulfur dioxide; PM ₁₀ = particulate matter less than 10 microns; PM _{2.5} = particulate matter less than 2.5 microns.						
Notes: 1. Emissions were calculated using the URBEMIS 2007 version 9.2.4 Computer Model, as recommended by the SCAQMD. The reduction/credits for construction emission mitigations are based on mitigation included in the URBEMIS 2007 version 9.2.4 Computer Model and as typically required by the SCAQMD (Rule 403 and Rule 1113). The mitigation includes the following: replace ground cover on disturbed areas quickly, water exposed surfaces twice daily, proper loading/unloading of mobile and other construction equipment, and the use of low ROG coatings. 2. Note that the URBEMIS 2007 model has been found to overestimate diesel emissions from construction equipment, as it does not account for various rules and regulations such as the Portable Equipment Airborne Toxic Control Measure (ATCM), Transportation Refrigeration Units (TRU) ATCM, Red/Green Sticker Program, Carl Moyer Program, In-use Off-road Diesel Vehicle Regulation, and Local Rules (Sierra Research, Inc., <i>Emissions from Diesel-Fueled Non-Road Equipment in California</i> , April 19, 2010). Therefore, actual emissions may be lower than those presented above. However, the URBEMIS 2007 modeled emissions as presented is the suggested method of emissions quantification by CARB and the SCAQMD. 3. Emissions were similar during these years and the highest emissions are reported. 4. Refer to Appendix B, Air Quality Data, for assumptions used in this analysis. 5. Phase 3 includes construction of 1,761 single family dwelling units and 281 condominium/townhome units. 6. Grading activities would occur over an approximate 12 month period, trenching would occur for 2 months, paving would occur for 1 month, building would occur for 115 months, and architectural coatings would occur intermittently between 2021 and 2031. 8. CARB Certified Tier 4 equipment would be required post 2015 per Mitigation Measure AQ-7.						

Table 4.3-8
Phase 4 Construction Air Emissions

Emissions Source	Pollutant (pounds/day) ^{1, 2, 3}					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
PHASE 4^{4, 5}						
2032 (Grading, Trenching, Paving, Building)						
Unmitigated Emissions	6.24	42.81	32.51	0.11	683.14	143.90
Mitigated Emissions ⁶	6.24	6.78	32.51	0.11	109.14	24.02
SCAQMD Thresholds	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
2033 (Building)						
Unmitigated Emissions	114.08	13.11	30.47	0.11	1.28	0.90
Mitigated Emissions ⁶	35.31	6.78	30.47	0.11	1.28	0.90
SCAQMD Thresholds	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
2034 (Architectural Coating)						
Unmitigated Emissions	114.08	0.04	1.00	0.01	0.04	0.02
Mitigated Emissions	68.99	0.04	1.00	0.01	0.04	0.02
SCAQMD Thresholds	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
ROG = reactive organic gases; NO _x = nitrogen oxides; CO = carbon monoxide; SO ₂ = sulfur dioxide; PM ₁₀ = particulate matter less than 10 microns; PM _{2.5} = particulate matter less than 2.5 microns.						
Notes:						
1. Emissions were calculated using the URBEMIS 2007 version 9.2.4 Computer Model, as recommended by the SCAQMD. The reduction/credits for construction emission mitigations are based on mitigation included in the URBEMIS 2007 version 9.2.4 Computer Model and as typically required by the SCAQMD (Rule 403 and Rule 1113). The mitigation includes the following: replace ground cover on disturbed areas quickly, water exposed surfaces twice daily, proper loading/unloading of mobile and other construction equipment, and the use of low ROG coatings.						
2. Note that the URBEMIS 2007 model has been found to overestimate diesel emissions from construction equipment, as it does not account for various rules and regulations such as the Portable Equipment Airborne Toxic Control Measure (ATCM), Transportation Refrigeration Units (TRU) ATCM, Red/Green Sticker Program, Carl Moyer Program, In-use Off-road Diesel Vehicle Regulation, and Local Rules (Sierra Research, Inc., <i>Emissions from Diesel-Fueled Non-Road Equipment in California</i> , April 19, 2010). Therefore, actual emissions may be lower than those presented above. However, the URBEMIS 2007 modeled emissions as presented is the suggested method of emissions quantification by CARB and the SCAQMD.						
3. Refer to Appendix B, Air Quality Data, for assumptions used in this analysis.						
4. Phase 4 includes construction of 390 single family dwelling units and 100,000 square feet of elementary school.						
5. Grading activities would occur for 2 months, trenching would occur for 1 month, paving would occur for 1 month, building would occur for 19 months, and architectural coatings would occur for 6 months.						
6. CARB Certified Tier 4 equipment would be required post 2015 per Mitigation Measure AQ-7.						

**Table 4.3-9
Phase 5 Construction Air Emissions**

Emissions Source	Pollutant (pounds/day) ^{1, 2, 3}					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
PHASE 5^{4, 5}						
2035 (Grading, Trenching, Building)						
Unmitigated Emissions	6.24	42.81	32.51	0.10	688.34	144.99
Mitigated Emissions ⁶	6.24	21.51	32.51	0.10	109.96	24.20
SCAQMD Thresholds	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
2036 (Building)						
Unmitigated Emissions	2.14	12.83	26.92	0.10	1.21	0.71
Mitigated Emissions ⁶	2.14	6.78	26.92	0.10	1.21	0.71
SCAQMD Thresholds	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
2037 (Building, Architectural Coating)						
Unmitigated Emissions	82.57	12.83	26.92	0.10	1.21	0.71
Mitigated Emissions ⁶	74.31	6.78	26.92	0.10	1.21	0.71
SCAQMD Thresholds	75	100	550	150	150	55
<i>Is Threshold Exceeded?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
ROG = reactive organic gases; NO _x = nitrogen oxides; CO = carbon monoxide; SO ₂ = sulfur dioxide; PM ₁₀ = particulate matter less than 10 microns; PM _{2.5} = particulate matter less than 2.5 microns.						
Notes: 1. Emissions were calculated using the URBEMIS 2007 version 9.2.4 Computer Model, as recommended by the SCAQMD. The reduction/credits for construction emission mitigations are based on mitigation included in the URBEMIS 2007 version 9.2.4 Computer Model and as typically required by the SCAQMD (Rule 403 and Rule 1113). The mitigation includes the following: replace ground cover on disturbed areas quickly, water exposed surfaces twice daily, proper loading/unloading of mobile and other construction equipment, and the use of low ROG coatings. 2. Note that the URBEMIS 2007 model has been found to overestimate diesel emissions from construction equipment, as it does not account for various rules and regulations such as the Portable Equipment Airborne Toxic Control Measure (ATCM), Transportation Refrigeration Units (TRU) ATCM, Red/Green Sticker Program, Carl Moyer Program, In-use Off-road Diesel Vehicle Regulation, and Local Rules (Sierra Research, Inc., <i>Emissions from Diesel-Fueled Non-Road Equipment in California</i> , April 19, 2010). Therefore, actual emissions may be lower than those presented above. However, the URBEMIS 2007 modeled emissions as presented is the suggested method of emissions quantification by CARB and the SCAQMD. 3. Refer to Appendix B, Air Quality Data, for assumptions used in this analysis. 4. Phase 5 includes construction of 412 single family dwelling units. 5. Grading activities would occur for 3 months, trenching would occur for 1 month, building would occur for 20 months, and architectural coatings would occur for 6 months. 6. CARB Certified Tier 4 equipment would be required post 2015 per Mitigation Measure AQ-7.						

Conclusion. As previously noted, construction activities would occur in different locations on the Project site at different times; thereby not affecting the same sensitive receptors for significant periods of time. Nonetheless, construction impacts have the potential to exceed Federal and State ambient air quality standards. As depicted in Table 4.3-5 through Table 4.3-9, construction emissions would exceed the established SCAQMD thresholds for criteria pollutants. Implementation of Mitigation Measures AQ-1 through AQ-7 would lessen construction-related impacts by requiring measures to reduce air pollutant emissions from construction activities. These measures call for the maintenance of construction equipment, the use of non-polluting and non-toxic building equipment, the minimization of fugitive dust, and the use of machine guided grading equipment. Additionally, as the Project proposes significant grading activities and would result in exposed soils for the approximately 30 year construction period, Mitigation Measure AQ-5 would require the development of a Dust Management Plan prior to the issuance of grading permits for the control of fugitive dust throughout the five phases of construction.

As noted in the tables above, the URBEMIS 2007 model has been found to overestimate diesel emissions from construction equipment, as it does not account for various rules and regulations such as the Portable Equipment Airborne Toxic Control Measure (ATCM), Transportation Refrigeration Units (TRU) ATCM, Red/Green Sticker Program, Carl Moyer Program, In-use Off-road Diesel Vehicle Regulation, and Local Rules.¹¹ Therefore, actual emissions may be lower than those presented above. However, the URBEMIS 2007 modeled emissions as presented is the suggested method of emissions quantification by CARB and the SCAQMD.

Project grading must conform to the City's Municipal Code and California Building Code grading regulations. These regulations include adhering to SCAQMD Rule 403 and the City's Grading Manual, devising a haul route plan, erosion and sediment control plan, and slope analysis plan. The Specific Plan also calls for interim erosion control measures such as vegetation and soil stabilizers to minimize wind-blown dust. Project Design Features noted above would also reduce construction-related emissions. However, even with implementation of Mitigation Measures AQ-1 through AQ-7, construction emissions would exceed SCAQMD thresholds for ROG, CO, NO_x, PM_{2.5}, and PM₁₀ due to the magnitude of the proposed development, and a significant unavoidable impact would result.

Long-Term Mobile and Stationary Source Emissions

The proposed Specific Plan's implementation includes the development of various residential, commercial/office, school, recreational and open space uses, and possibly a satellite wastewater treatment facility. Table 4.3-10, *Estimated Operational Emissions for the Specific Plan*, summarizes the emissions based on the maximum development potential for the Specific Plan area. The overall emissions from development associated with the Specific Plan would exceed the SCAQMD thresholds for ROG, NO_x, CO, PM₁₀, and PM_{2.5}, resulting in a significant impact.

¹¹ Sierra Research, Inc., *Emissions from Diesel-Fueled Non-Road Equipment in California*, April 19, 2010.

Area source (indirect) and mobile emissions are described in greater detail below, followed by a conclusion regarding significance following implementation of Project Design Features and recommended mitigation measures.

Table 4.3-10
Estimated Operational Emissions for the Specific Plan

Source ²	Estimated Average Emissions (pounds/day) ¹					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summer Emissions						
Area Sources	370.50	89.38	232.97	0.01	0.69	0.67
Mobile Sources	434.33	587.02	5,385.97	6.41	1,046.26	203.61
Total Emissions	804.83	676.40	5,681.94	6.42	1,046.95	204.28
<i>SCAQMD Threshold</i>	55	55	550	150	150	55
Is Threshold Exceeded? (Significant Impact)	Yes	Yes	Yes	No	Yes	Yes
Winter Emissions						
Area Sources	336.27	87.19	40.10	0.00	0.17	0.16
Mobile Sources	468.85	707.03	5,144.34	5.34	1,046.26	203.61
Total Emissions	805.12	794.22	5,184.44	5.34	1,046.43	203.77
<i>SCAQMD Threshold</i>	55	55	550	150	150	55
Is Threshold Exceeded? (Significant Impact)	Yes	Yes	Yes	No	Yes	Yes
Notes:						
1 Emissions estimates calculated using URBEMIS 2007 (version 9.2.4). URBEMIS utilizes regional default assumptions, which are consistent with the Traffic Impact Assessment.						
2 Emissions estimates calculated using the land use categories/intensities depicted in Section 3.0, <i>Project Description</i> .						
Refer to Appendix B, <i>Air Quality Modeling Data</i> , for detailed model input/output data.						

Area Source Emissions

Area source emissions are sources of air pollutants that individually emit relatively small quantities of air pollutants, but which cumulatively may emit large quantities of emissions. Area source emissions would result from the use of natural gas combustion, landscape maintenance equipment, and the use of consumer products, such as aerosol sprays. As indicated in Table 4.3-10, URBEMIS2007 was used to estimate area sources from the project. URBEMIS2007 estimates landscape maintenance equipment emissions from fuel combustion as well as from fugitive dust generated by equipment such as leaf blowers. Future emissions from area sources within the Project area could be significant.

Air quality impacts would be regional and not confined to the City limits. Development of the Specific Plan would be required to comply with SCAQMD regulations and permitting requirements. Compliance with Mitigation Measure GHG-1 and GHG-2 (refer to Section 4.5, *Climate Change*), as well as with regulations and permit requirements, would reduce emissions from new commercial and residential uses. Mitigation Measure GHG-1 includes requirements for building and water efficiency. Implementation of these measures and programs would reduce area source emissions due to reduced energy demand, thereby reducing area source emissions related to natural gas and electricity consumption. Additionally, Mitigation Measure GHG-2 would amend the Specific Plan to allow and promote renewable energy resources such as rooftop solar. However, emissions resulting from area sources would remain significant due to the magnitude of development associated with the proposed Specific Plan.

Mobile Source Emissions

Based on the *Butterfield Specific Plan Traffic Impact Analysis*, prepared by LSA Associates, Inc. (December, 2010), the proposed Project would generate 62,263 net daily trips. Although the Specific Plan would be consistent with the General Plan goals and policies, as concluded in Section 4.10, *Land Use and Planning*, a General Plan Amendment would be required for the designation of specific land uses on the General Plan Land Use Map to correspond to the land use designations in the Specific Plan area. Refer to the *Consistency with Air Quality Management Plan* discussion below.

As seen in Table 4.3-10, mobile sources are anticipated to be the largest contributor to the estimated annual average air pollutant levels, and would exceed the SCAQMD thresholds. Mobile source emissions are emissions from vehicle trips that are generated by the operation of a project. Mobile source emissions include tailpipe and evaporative emissions (i.e., gasoline vapors escaping from the vehicle's fuel system). Mobile source emission depicted in Table 4.3-10 are from the URBEMIS2007 model run conducted for the proposed project. URBEMIS uses the fleet mix information included in the EMFAC2007 files to generate the fleet mix estimates. For example, depending on the base year and area selected, URBEMIS uses a specific EMFAC file to obtain the average fleet mix for that location and year; refer to Appendix B for detailed data on the fleet mix utilized for the proposed project.

Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, VOCs, NO_x, SO_x and PM₁₀ are all pollutants of regional concern; (NO_x and VOCs react with sunlight to form O₃ [photochemical smog], and wind currents readily transport SO_x and PM₁₀). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

The destinations of motor vehicles, which are the primary contributors to mobile air pollution, vary widely and cross many jurisdictional boundaries. The Specific Plan proposes residential, commercial/office, school, and open space uses within the Plan area. The variety of land uses

within the Plan area would reduce vehicle miles traveled (VMT), thereby reducing emissions. However, due to the magnitude of development and associated mobile source air quality impacts, impacts in this regard remain significant and unavoidable.

Health Effects

The proposed Specific Plan is located in the City of Banning, and is located less than one-half mile north of Interstate 10 (I-10), and the Southern Pacific Railroad (SPRR). The proximity to I-10 and SPRR rights-of-ways poses a concern for potential exposure of future development to toxic air contaminants from these sources. Emissions from trains and freeway truck travel include the following four toxic compounds that contribute the greatest risk: diesel particulate, benzene, 1,3 butadiene, and formaldehyde. The Multiple Air Toxics Exposure Study III (MATES III) is a monitoring and evaluation study conducted by the SCAQMD. The MATES III study consists of a monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to characterize risk throughout the Basin. The study concentrates on the carcinogenic risk from exposure to air toxics. Ten monitoring locations measured toxic air contaminants (over 30 air pollutants) once every three days for two years.

The carcinogenic risk from air toxics in the Basin, based on average concentrations at the fixed monitoring locations, is about 1,200 per million. This risk refers to the expected number of additional cancers in a population of one million individuals that are exposed over a 70-year lifetime. Under the MATES III methodology, approximately 94 percent of the risk is attributed to mobile source emissions, and approximately six percent is attributed to stationary sources. The Inland Valley San Bernardino monitoring location (nearest monitoring station to the Project area, approximately 33 miles to the west) reported higher levels of risk. However, the MATES III Study found a decreasing risk for air toxics exposure compared to previous MATES studies. Additionally, the MATES III study found an estimated Basin-wide population-weighted risk reduced by eight percent from the MATES II Study, which includes the City of Banning. Although the City is located in an area of the Basin with some of the higher concentrations of air toxics, these concentrations are declining and conditions are continuing to improve. Additionally, the ambient air toxics data from the ten fixed monitoring sites demonstrated a reduction in air toxic levels and risks. Additionally, CARB's *Air Quality and Land Use Handbook* recommends 500 feet (150 meters) between busy roadways and sensitive receptor locations. The closest portion of the Project is more than 2,000 feet away from I-10 and the SPRR. Therefore, health risk impacts to the proposed Project would be less than significant.

AQ-1 Prior to issuance of any Grading Permit, the Director of Public Works and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, in accordance with SCAQMD Rule 402, the Applicant shall implement dust

suppression techniques to prevent fugitive dust from creating a nuisance off-site. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered at least twice daily to prevent excessive amounts of dust;
- On-site vehicle speed shall be limited to 15 miles per hour;
- All on-site roads shall be paved where feasible, watered as needed, or chemically stabilized;
- Visible dust beyond the property line which emanates from the project shall be prevented to the maximum extent feasible;
- All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site;
- Track-out devices shall be used at all construction site access points;
- All delivery truck tires shall be watered down and/or scraped down prior to departing the job site; and
- Replace ground cover on disturbed areas quickly.

AQ-2 All trucks that are to haul excavated or graded material on-site shall comply with State Vehicle Code Section 23114 (Spilling Loads on Highways), with special attention to Sections 23114(b)(F), (e)(4) as amended, regarding the prevention of such material spilling onto public streets and roads. Prior to the issuance of grading permits, the Applicant shall coordinate with the appropriate City of Banning Engineer on hauling activities compliance.

AQ-3 Prior to the issuance of building permits, the City building official shall confirm that construction plans and specifications include the following measures, which shall be implemented to reduce ROG emissions resulting from application of architectural coatings:

- Contractors shall use high-pressure-low-volume (HPLV) paint applicators with a minimum transfer efficiency of at least 50 percent;
- Coatings and solvents with a ROG content lower than required under Rule 1113 shall be used;
- Construction and building materials that do not require painting shall be used to the extent feasible; and
- Pre-painted construction materials shall be used to the extent feasible.

- AQ-4** Prior to issuance of any Grading Permit, the Director of Public Works and the Building Official shall confirm that the Grading Plan, Building Plans and specifications stipulate that, in compliance with SCAQMD Rule 403, ozone precursor emissions from construction equipment vehicles shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturer's specifications, to the satisfaction of the City Engineer. A set of maintenance records shall be provided to the City before grading commences. The City Inspector shall be responsible for ensuring that contractors comply with this measure during construction.
- AQ-5** Prior to issuance of any Grading Permit, the grading plan shall indicate dust management measures for review and approval by the City Engineer, to identify viable dust control measures and include a monitoring plan to be implemented throughout the construction phases of the Specific Plan. In accordance with the Specific Plan and City's Municipal Code, the dust management measures shall minimize wind-blown particles by including:
- a) All applicable mitigation measures identified in this EIR (related to dust control) and otherwise required by the City or SCAQMD;
 - b) An erosion and sediment control plan to minimize wind or waterborne transport of soil onto adjacent properties, streets, storm drains, or drainages; and
 - c) A Revegetation Plan to address interim conditions between initial grading and final site development. The Revegetation Plan, although focused on the control of wind and water erosion, shall consider compatibility with fuel modification zone requirements, drought tolerant landscape requirements, and potential ongoing livestock grazing. Special techniques such as wind fences shall also be considered, to minimize surface soil and dust during high wind events.
- AQ-6** GPS-controlled "machine-guided grading", or other equivalent grading techniques, shall be incorporated into Project grading plans, subject to review and approval by the City Engineer. This technology will be utilized on mass grading activities where deemed feasible, and shall be used where feasible on subsequent rough or fine grading activities.
- AQ-7** The following measures shall be implemented during construction to substantially reduce NO_x related emissions. They shall be included in the Grading Plan, Building Plans, and specifications.
- Off-road diesel equipment operators shall be required to shut down their engines rather than idle for more than five minutes, and shall ensure that all off-road

equipment is compliant with the CARB in-use off-road diesel vehicle regulation and SCAQMD Rule 2449.

- The following note shall be included on all grading plans: “The City shall require construction contractors to utilize diesel powered construction equipment that meets EPA-Certified Tier III emissions standards, or higher according to the following:
 - January 1, 2012, to December 31, 2014: All off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 3 off-road emissions standards at a minimum. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
 - Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
 - A copy of each unit’s certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.
 - Encourage construction contractors to apply for AQMD “SOON” funds. Incentives could be provided for those construction contractors who apply for AQMD “SOON” funds. The “SOON” program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website:
<http://www.aqmd.gov/tao/Implementation/SOONProgram.htm>.”
- The contractor and applicant, if the applicant’s equipment is used, shall maintain construction equipment engines by keeping them tuned and regularly serviced to minimize exhaust emissions.

- Low sulfur fuel for stationary construction equipment shall be required. This is required by SCAQMD Rules 431.1 and 431.2.
- Existing power sources (i.e., power poles) shall be used when available. This measure would minimize the use of higher polluting gas or diesel generators.
- Construction parking shall be located on-site where possible and shall be configured to minimize traffic interference.
- Obstruction of through-traffic lanes shall be minimized by providing temporary traffic controls such as flag persons, cones and/or signage during all phases of construction when needed to maintain smooth traffic flow. Construction shall be planned so that lane closures on existing streets are kept to a minimum.
- Construction operations affecting traffic shall be scheduled for off-peak hours to the extent feasible.
- Develop a traffic plan to minimize traffic flow interference from construction activities. The plan shall specify the times during which construction activities will occur and particular times when travel lanes cannot be blocked (e.g., peak traffic periods as directed by the affected City Engineer). The plans shall provide details regarding the placement of traffic control, warning devices and detours. As a supplement to the traffic plan, the construction contractor shall coordinate with the affected agency to determine the need for a public information program which would inform area residents, employers and business owners of the details concerning construction schedules and expected travel delays, detours, and blocking of turning movements lanes at intersections. The public information programs could utilize various media venues (e.g., newspaper, radio, television, telephone hot lines, internet website, etc.) to disseminate information such as:
 - Overview of project information
 - Weekly updates on location of construction zones;
 - Identification of street(s) affected by construction;
 - Times when construction activities will occur and when traffic delays, and blockage of intersection turning movements can be expected; and
 - Identification of alternate routes which could be use to avoid construction delays.

Impact 4.3-2: Sensitive Receptors

Threshold: *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Determination: *Less than Significant Impact*

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affect residents, school children, hospital patients, the elderly, etc.). The SCAQMD requires a quantified assessment of CO hotspots when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.02 (two percent) for any intersection with an existing level of service LOS D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections. However, for the purposes of this analysis, intersections with the worst LOS and delay times were modeled based on the three categories of intersections in the study area: signalized, two-way stop controlled, and all-way stop controlled; refer to Table 4.3-11, *Project Buildout Carbon Monoxide Concentrations*. All other intersections would be expected to have lower CO concentrations than those modeled.

The projected traffic volumes were modeled using the BREEZE ROADS dispersion model. The resultant values were then added to an ambient concentration. A receptor height of 1.8 meters was used in accordance with the EPA's recommendations. The calculations assume a meteorological condition of almost no wind (0.5 meters/second), a flat topological condition between the source and the receptor and a mixing height of 1,000 meters. A standard deviation of five degrees was used for the deviation of wind direction. The suburban land classification was used for the aerodynamic roughness coefficient. This follows the BREEZE ROADS user's manual definition of suburban as, "regular coverage with large obstacles, open spaces roughly equal to obstacle heights, villages, mature forests."

For the purposes of this analysis, the ambient concentration used in the modeling was the highest one-hour measurement from 2009 (the latest year data was available) of SCAQMD monitoring data at the San Bernardino Monitoring Station. Actual future ambient CO levels may be lower due to emissions control strategies that would be implemented between now and the Project buildout date.

**Table 4.3-11
Project Buildout Carbon Monoxide Concentrations**

Intersection	1-Hour CO (ppm) ¹		8-Hour CO (ppm) ¹	
	1-Hour Standard	Future + Project	8-Hour Standard	Future + Project
I-10 EB Ramps/San Timoteo Canyon Drive (two-way stop control)	20 ppm	2.8	9 ppm	2.13
Sunset Avenue/Wilson Street (all-way stop control)	20 ppm	2.7	9 ppm	2.05
Sunset Avenue/Ramsey Street (signal)	20 ppm	2.7	9 ppm	2.05
Notes: 1. As measured at a distance of 10 feet from the corner of the intersection predicting the highest value. Presented 1 hour CO concentrations include a background concentration of 2.50 ppm. Eight-hour concentrations are based on a persistence of 0.76 of the 1-hour concentration.				

The intersections in the study area currently operate at an LOS ranging from LOS A to LOS F for PM peak hour activities. At Project buildout, 48 of these intersections would operate at LOS D or worse in an unmitigated condition. Table 4.3-11 presents the CO concentrations for the worst case scenarios. As indicated in Table 4.3-11, CO concentrations at the three worst case intersections would be well below the State and Federal standards. Therefore, it can be reasonably inferred that the remainder of the intersections would also be below the State and Federal standards. The modeling results are compared to the CAAQS for CO of 9 ppm on an eight-hour average and 20 ppm on a one-hour average. Neither the one-hour average nor the eight-hour average would be equaled or exceeded. Impacts in regards to CO hotspots would be less than significant.

Impact 4.3-3: Air Quality Management Plan

Threshold: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Determination: Significant and Unavoidable

Consistency with the 2007 *Air Quality Management Plan for the South Coast Air Basin* (2007 AQMP) means that a project is consistent with the goals, objectives, and assumptions in the respective plan to achieve the Federal and State air quality standards. According to the SCAQMD CEQA *Air Quality Handbook*, in order to determine consistency with the AQMP, two main criteria must be addressed.

*Criterion 1 (determination – **potentially not consistent**):*

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

- a) *Would the project result in an increase in the frequency or severity of existing air quality violations? **Potentially.***

The South Coast Air Basin is currently in non-attainment for ozone and particulate matter. ROG and NO_x are precursors to ozone formation. As shown above in Tables 4.3-5 through 4.3-9, Project emissions would exceed SCAQMD thresholds during construction and operations for ROG, NO_x, CO, PM₁₀, and PM_{2.5}.

The Project would implement applicable local, State and Federal air quality measures, and Project construction fleet and operational-related traffic is regulated by CARB vehicle emission reduction programs. The EIR also identifies an extensive menu of additional mitigation measures and Project Design Features to further reduce potential construction-related and operational emissions to the extent feasible; refer to Mitigation Measures GHG-1 and GHG-2 in Section 4.5, *Climate Change*. The SCAQMD continues to promulgate rules and regulations to bring the Basin into conformity. The Project is consistent with the City's General Plan, and generally consistent with the previously approved Deutsch Specific Plan dating back to the early 1990's. Nonetheless, given the scale of the Project and non-attainment status of the Basin, it is possible that the Project's construction and/or operational emissions would exacerbate SCAQMD's regional efforts to bring the Basin into attainment. However, this is no different than the cumulative effect that SCAQMD development projects would have upon Basin attainment, for which the SCAQMD has and is continuing to pursue various attainment strategies through the AQMP implementation process.

- b) *Would the project cause or contribute to new air quality violations? **Potentially.***

As discussed above, localized concentrations of CO have been analyzed for the Project, and would be below SCAQMD thresholds. SO_x emissions would be minimal during construction and long-term operations, and therefore would not have the potential to cause or affect a violation of the SO_x ambient air quality standard. As shown in Table 4.3-11, the Project would not exceed localized significance thresholds. However, it should be noted that the proposed project would exceed each of the SCAQMD's regional thresholds of significance with the exception of SO_x emissions.

- c) *Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP? **Potentially.***

The proposed Project would result in significant impacts for regional emissions with regard to criteria pollutants during Project construction and operations (refer to the discussion above under Criterion 1a). As such, the Project could delay the timely attainment of air quality standards or AQMP emissions reductions.

*Criterion 2 (determination – **consistent**):*

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed Project exceeds the assumptions utilized in preparing the forecasts presented in the AQMP. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

- a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP? **Yes.***

A project is consistent with the AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2007 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the *City of Banning General Plan (General Plan)*, SCAG's *Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG)*, and SCAG's 2008 *Regional Transportation Plan (RTP)*. The RTP also provides socioeconomic forecast projections of regional population growth. The Specific Plan would also be consistent with the *General Plan* goals and policies, as concluded in Section 4.10, *Land Use and Relevant Planning*, although a *General Plan* Amendment would be required for the redesignation of land uses on the General Plan Land Use Map within the Specific Plan area. The Project is generally consistent with the previously approved Deutsch Specific Plan¹². These uses were incorporated into the City General Plan and GPEIR. Thus, the proposed Project is consistent with City-wide plans for population growth at the Project site, and is consistent with the types, intensity, and patterns of land use envisioned for the site

¹² Other than small variations in individual Planning Areas, the overall nature and density of development has remained similar for the Project since 1993. Although there is a slight increase in proposed commercial/office uses, there are other Project features that would more than offset this (such as slight reduction in residential, a new overlay that could replace school and commercial uses with residential uses without exceeding the residential maximum, the maintaining of an average gross density from 3.5 DU/acre, and the addition of an "Active Adult Alternative", all of which would serve to reduce net traffic generation and associated VMT). On a regional scale of SCAG and RTP consistency, the Project is considered consistent.

vicinity in the RCPG. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the City; these are used by SCAG in all phases of implementation and review. Additionally, as the SCAQMD has incorporated these same projections into the 2007 AQMP, it can be concluded that the proposed Project would be consistent with the projections.

b) *Would the project implement all feasible air quality mitigation measures? Yes.*

The Project implements applicable feasible mitigation measures as described in this Section, as well as feasible greenhouse gas reduction measures, as described in Section 4.5, *Climate Change*. The project would include design features that would reduce operational emissions of criteria pollutants. For example, the "Smart Homes" program would improve building efficiency and energy usage, thereby reducing both direct and indirect area source emissions. Furthermore, several design features would reduce vehicle trips and/or vehicle miles traveled, thereby reducing mobile source emissions. Although Project-related emissions would remain significant, the applicant has committed to additional aggressive emissions reductions measures such as use of machine-guided grading to reduce construction emissions, provision of "Smart Homes" to reduce residential operational emissions, and inclusion of renewable energy uses as "conditionally permitted uses" in the Specific Plan to allow for incorporation of solar, electric and/or hydrogen power stations into the Project to accommodate "clean vehicles", thereby reducing mobile source emissions of criteria pollutants (refer to Section 4.5, *Climate Change*, for additional discussion). As such, the proposed Specific Plan Project meets this AQMP consistency criterion.

c) *Would the project be consistent with the land use planning strategies set forth in the AQMP? Yes.*

The proposed Project would serve to implement various City and SCAG policies. The Project would implement the Butterfield Specific Plan development in a currently undeveloped portion of the City (this Project is substantially the same as the Deutsch Specific Plan, which was approved for the site in 1993). The project would be consistent with the applicable AQMP measures such as the energy efficiency and control measures. As described above, the proposed project would implement the "Smart Homes" program that would improve building energy efficiency and promote conservation. The southwestern corner of the Project is located approximately 300 feet from an existing bus stop (at the hospital on the corner of North Highland Springs Avenue and West Wilson Street). The existing transit network would be expanded throughout the entire project site and the City of Banning and Riverside County Transit authorities would be consulted to implement long-term public transportation projects and to develop vanpools and subscription bus service. Furthermore, the project would include pedestrian paths and bike trails that would provide both internal and external connections. These various project design features would be consistent with the land use and planning strategies set forth in the AQMP. Other AQMP transportation strategies target regional

emissions (mobile sources outside of the project area) that require SCAQMD coordination with SCAG and include control programs to reduce vehicle emissions and remove high emitters. The proposed project would not conflict with these strategies.

Impact 4.3-4: Odors

Threshold: *Would the project result in the creation of objectionable odors affecting a substantial number of people?*

Determination: *Less than Significant Impact with Mitigation Incorporated*

Short-Term (Construction) Related Odors

Potential odors could arise from the diesel construction equipment used on-site, as well as from architectural coatings and asphalt off-gassing. Emissions produced during grading and construction activities are short-term, as they would exist only in close proximity to the specific construction activity. Although construction would occur over a 25-year period, these activities would occur at different locations as the equipment moves throughout the 1,543 acre project site. In addition, construction odors would be subject to the requirements of SCAQMD Rule 402 which prevents odor nuisance to surrounding receptors. Therefore, short-term (construction) odor impacts would be less than significant with implementation of Mitigation Measure AQ-7, which requires measures during construction to substantially reduce NO_x related emissions.

Operational Odors

The Project includes an optional satellite wastewater treatment plant. This facility would be fully enclosed, and would operate on a 24-hour basis, with approximately 16 hours of operational staff time per week. The solids removed during the treatment process would be pumped into the existing sewer line in Wilson Street and to the City's existing wastewater treatment plant for further treatment and disposal. Since there would be no further handling of solids at the satellite wastewater treatment plant, there would not be significant truck traffic accessing the site during operation. The plant would use a membrane bioreactor (MBR) process to treat up to approximately 1.7 to 2.0 million gallons per day on average of wastewater to acceptable recycled water levels. There will not be any outside ponds or storage facilities typically associated with wastewater treatment plants. All wastewater not turned into recycled water will be diverted into existing sewers system in Wilson Street where it will flow to the City's main wastewater treatment plant at the southeast end of the City.

The construction and implementation of the wastewater treatment plant would require a conditional use permit (CUP) to be approved by the City of Banning, as well as design review of the proposed site plan and building architecture, landscaping and lighting; refer to mitigation

Measure AQ-8. The satellite wastewater treatment plant would not involve outdoor settling ponds or wet weather basins, would be fully enclosed, and would have to comply with the City Municipal Code Section 13.20 and SCAQMD Rule 402 requirements for odor control.

AQ-8 Construction and implementation of the wastewater treatment plan shall require a Conditional Use Permit (CUP) to be approved by the City of Banning, as well as design review of the proposed site plan and building architecture, landscaping and lighting.

4.3.5 CUMULATIVE IMPACTS

Determination: Significant and Unavoidable.

The SCAQMD neither recommends quantified analyses of cumulative construction or operational emissions, nor does it provide separate methodologies or thresholds of significance to be used to assess cumulative construction impacts. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed using the same significance criteria as those for project-specific impacts. Therefore, individual development projects that generate construction-related or operational emissions that exceed the SCAQMD recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is nonattainment.

Short-Term Construction Emissions

SCAQMD thresholds for criteria pollutants are established for individual development projects, and it is assumed that some of the projects that would be implemented under the Specific Plan could individually exceed the SCAQMD thresholds. Based on the program-level construction analysis above, construction-related emissions associated with future potential development projects in the Project area may be "cumulatively considerable", even with implementation of the recommended mitigation measures. Construction of future development and infrastructure projects under the Specific Plan would be required to comply with the applicable SCAQMD rules and regulations, SCAQMD Air Quality Management Plan, City of Banning and City of Beaumont General Plan EIRs, Riverside County General Plan EIR, and SCAG Compass Blueprint Growth Visioning Program. These measures call for the maintenance of construction equipment, the use of non-polluting and non-toxic building equipment, and minimizing fugitive dust.

Long-Term Operational Emissions

New development under the proposed Specific Plan, combined with other anticipated future development in the region would contribute to a cumulative annual increase in regional air pollutant emissions. Table 4.3-10 depicts the estimated mobile and stationary source emissions

associated with the potential development in the Specific Plan area. As shown in Table 4.3-10, the emissions from development of the project area exceed the SCAQMD thresholds for ROG, NO_x, CO, PM_{2.5}, and PM₁₀, resulting in a significant impact. In accordance with SCAQMD methodology, any project that cannot be mitigated to a level of less than significant is also significant on a cumulative basis. Therefore, the cumulative operational emissions associated with the proposed Project are significant on a program level.

4.3.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the proposed Project would result in a significant and unavoidable impact for the following areas:

- Construction-Related Emissions – As Project-related emissions are anticipated to exceed SCAQMD thresholds, construction-related emissions are considered significant and unavoidable.
- Regional Operational Emissions – During the operational phase, the Project would result in a net increase in regional emissions of ROG, NO_x, SO₂, CO, PM₁₀, and PM_{2.5} from the operation of both stationary and mobile sources. Despite the inclusion of numerous project design features that would reduce the potential air quality impacts to the degree feasible, emissions would remain above SCAQMD significance thresholds. Therefore, operation of the proposed Project would have a significant and unavoidable impact on regional air quality.
- AQMP Consistency – As the Project would exceed SCAQMD thresholds, the Project would potentially result in a long-term impact on the region's ability to meet State and Federal air quality Standards. The Project would conflict with the AQMP as it would not meet the first AQMP consistency criterion. However, the proposed Specific Plan is generally consistent with the previously approved Deutsch Specific Plan, and therefore the City of Banning General Plan's assumptions regarding population and housing growth. On a regional scale, the emissions from the Specific Plan have been considered in the forecasts presented in the 2007 AQMP. The Project would meet the second AQMP consistency criterion.
- Cumulative Construction and Operational Emissions Impacts – Emissions from development of the proposed Project would exceed the SCAQMD thresholds, resulting in a significant impact. In accordance with SCAQMD methodology, any project that cannot be mitigated to a level of less than significant is also significant on a cumulative basis.

All other impacts are either at less than significant levels or can be mitigated to less than significant levels.

SECTION 4.4

BIOLOGICAL RESOURCES

4.4.1 INTRODUCTION

The purpose of this Section is to identify existing biological resources within the Project area, analyze potential biological impacts associated with the development of the proposed Project, and identify mitigation measures that would avoid or reduce the significance of any identified impacts. The mitigations are designed to be consistent with the requirements of the MSHCP, including survey requirements for sensitive species potentially occurring on site and mitigations for anticipated impacts to riparian and riverine habitats. The data presented in this Section is based on information contained in the *Biological Resources Assessment of the 1,543-Acre Butterfield Specific Plan Area* (Natural Resources Consultants, September 9, 2010) included as Appendix C1, the *Burrowing Owl Survey* (Natural Resources Consultants, March 2007) and the *Jurisdictional Delineation of the 1,543-Acre Butterfield Specific Plan Development Project* included as Appendix C2 (Glen Lukos Associates, August 31, 2010). Additional information was obtained from the *Banning General Plan Updated Biological Report* (AMEC 2004), the *City of Banning Comprehensive General Plan Update* (2006) and *General Plan Update EIR* (2005) and the *Western Riverside Multi-Species Habitat Conservation Plan* (2003). Thresholds of significance for the impact analysis are derived from Appendix G of the 2010 *California Environmental Quality Act Guidelines* (the “Guidelines”).

Definitions

- A *federally endangered species* is a species of invertebrate, plant, or wildlife formally listed by the United States Fish and Wildlife Services (USFWS) under the federal *Endangered Species Act* (ESA) as facing extinction throughout all or a significant portion of its geographic range.
- A *federally threatened species* is one formally listed by the USFWS as likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
- The term “*take*” under the federal ESA means to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct.
- “*Harm*” is defined by the USFWS to encompass “an act which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”
- A *federally proposed, threatened, or endangered species* is a species officially proposed by the USFAWS for addition to the federal threatened or endangered species list.

- A *California endangered species* is one whose prospects of survival and reproduction are in immediate jeopardy.
- A *California threatened species* is one present in such small numbers throughout its range that it is considered to likely to become endangered in the near future in the absence of special protections or management.
- A *California rare species* is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. The designation “rare species” applies only to California native plants.
- *Species of Special Concern* is an informal designation used by the California Department of Fish and Game (CDFG) for declining wildlife species that are not officially listed as endangered, threatened or rare. Species that are *California fully protected* include those protected by special legislation as vulnerable by the CDFG.
- The term “*Waters of the United States*” is defined in USACE regulations as (1) all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which would affect foreign commerce.
- In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the *ordinary high water mark* (OHWM), which is defined as “that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank....”
- The term “*wetlands*” defines a subset of waters of the US and consists of those “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions.
- The term “*waters of the state*” is defined in the State Water Code as “any surface water or groundwater, including saline waters, within the boundaries of the state.

4.4.2 EXISTING CONDITIONS

4.4.2.1 ENVIRONMENTAL SETTING

Project Site

Location

The Butterfield Project site is located within the City of Banning, in Riverside County, at the northwest edge of the City in Section 1 of Township 3 South, Sections 25 and 36 of Township 2 South, Range 1 West and Section 31 of Township 2 South, Range 1 East as shown on the USGS 7.5' *Beaumont* quadrangle. The Project site also includes a 21-acre parcel that is located in an adjacent unincorporated portion of the County of Riverside, California (refer to Exhibit 3.0-2, *Local Vicinity Map*), which is however within the Banning General Plan Sphere of Influence and addressed in the General Plan. The Project site lies north of Interstate 10 at the northwestern development edge of the City, and is bordered by Highland Springs Avenue to the west, unincorporated communities to the north, mostly undeveloped land adjacent to the San Bernardino Mountains foothills to the distant north, Highland Home Road and urban areas to the east, undeveloped land to the northeast, and Wilson Street to the south.

Natural Resources Consultants conducted general biological surveys of the Butterfield site during May 2005 and September 2006 and this information was updated in March through August 2010 and included off-site improvement areas. The surveys were conducted on foot and covered all slope aspects, soil types, and drainages. The purpose of these surveys was to gather general information about the site's topography and biological resources, including the extent and location of vegetation communities and the presence of conditions sufficient to support any sensitive special status plant and wildlife species.

Site Characteristics

The majority of the Project site is sparsely vegetated with primarily non-native grasses. It currently supports cattle grazing and has been historically used for agriculture; refer to Section 4.2, *Agricultural Resources* for a detailed discussion of these historic uses. Site topography is predominately flat in the central and southern portions of the site with low rolling hills and steeper sloped hills in the most northern portions of the site. Elevation ranges from approximately 3,400 feet above mean sea level (amsl) in the north to 2,560 feet amsl in the south.

The site supports three drainages as depicted on the USGS topographic map and includes Smith Creek, its tributaries, and several other minor drainage features that were identified during site surveys. The primary blue-line drainage is Smith Creek, an ephemeral and braided drainage system that traverses the site from north to south. The creek is sparsely vegetated and supports an alluvial sandy cobble substrate. This creek system occupies approximately 27.9 acres on site.

Portions of the creek's sandy wash habitat are identified as being within the jurisdictional purview of the United States Army Corps of Engineers (USACE or "Corps") and California Department of Fish and Game (CDFG); these jurisdictional features are described in detail later in this section.

On-Site Vegetative Communities

Seven vegetation communities occur on the Butterfield site and include: non-native grassland in agricultural use for cattle grazing (1,220.2 acres), annual grasslands not used for grazing (50.8 acres), mixed chaparral (11.7 acres), disturbed coastal sage scrub (1.4 acres), southern willow scrub (<0.4 acre), sandy wash (27.9 acres), landscaping (5.1 acres). The site also includes approximately 225.9 acres of disturbed/developed land. Refer to Exhibit 4.4-1, *Biological Resources Map*.

Grasslands used for cattle grazing are vegetated with non-native grasses that include brome grasses (*Bromus diandrus*, *B. madritensis*, *B. hordeaceus*), Mediterranean barley (*Hordeum murinum*), oats (*Avena* sp.), and short-podded mustard (*Hirschfeldia incana*). Dense stands of non-native and taller growing winter vetch (*Vicia villosa*) and/or wild radish (*Raphanus sativus*) are distributed across large areas of the site, but primarily occur in the central and southern portions of the site. Other common species occur in localized areas. The area is subject to disturbances associated with grazing including soil compaction and waste deposition.

Approximately 50.8 acres of the site supports annual grasslands that are not subject to cattle grazing. These annual grasslands are dominated by non-native grasses including brome grasses (*Bromus diandrus*, *B. madritensis*, *B. hordeaceus*), Mediterranean barley (*Hordeum murinum*), oats (*Avena* sp.), and short-podded mustard (*Hirschfeldia incana*). This vegetation community primarily occurs on the steeper slopes in the northern area of the site with the height and the density of the vegetation increasing and species diversity decreasing relative to that found on the open grazed areas to the south.

Scrub vegetation along the edges and banks of Smith Creek include disturbed coastal sage scrub and southern willow scrub. Southern willow scrub is found in a small area at the southern end of Smith Creek and in a narrow band of riparian habitat in a tributary in the southeast corner of the site. Southern willow scrub covers less than 0.4 acres of the site. Vegetation along the edges, and above the banks, within the upper reaches of Smith Creek consists of California buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), smooth yerba santa (*Eriodictyon californicum*), red-stemmed filaree (*Erodium cicutarium*), red brome (*Bromus madritensis* ssp. *rubens*), hairy vetch (*Vicia villosa*), common cryptantha (*Cryptantha intermedia*), morning glory (*Calystegia* sp.), horseweed (*Conyza canadensis*), chia (*Salvia columbariae*), smilo grass (*Piptatherum miliaceum*), four-spot Clarkia (*Clarkia purpurea*), and mugwort (*Artemisia douglasiana*). Vegetation along, or above, the banks of the lower reaches of Smith Creek consists of walnut (*Juglans hindsii*) and limited stands of mulefat (*Baccharis salicifolia*), and arroyo willows (*Salix lasiolepis*).

A tributary drainage to Smith Creek, identified as Tributary A-1 in the GLA Jurisdictional Delineation (Appendix C2) contains approximately 0.02 acre of USACE jurisdictional area. The drip line and/or boundaries of existing vegetated riparian habitat within this tributary ranges in width from two to 40 feet. Vegetation within the upper reaches of Tributary A-1 consists of southern cattail (*Typha domingensis*), willow herb (*Epilobium ciliatum*), tall umbrella sedge (*Cyperus eragrostis*), and curly dock (*Rumex crispus*). The lower segment of Tributary A-1 contained a small patch of arroyo willows and black willows (*Salix gooddingii*). The uplands adjacent to Tributary A-1 were dominated by non-native species, such as red brome (*Bromus madritensis*, ssp. *rubens*) and summer mustard (*Brassica geniculata*).

Table 4.4-1
On-Site Vegetation Community Summary

Vegetation Community	Acreage
Non-native Grasslands used for cattle grazing (i.e., "agricultural use")	1,220.2
Annual Grasslands (not used for cattle grazing)	50.8
Mixed Chaparral	11.7
Disturbed Coastal Sage Scrub	1.4
Southern Willow Scrub	0.4
Sandy Wash	27.9
Landscaping	5.1
Disturbed/Developed	225.9
TOTAL	1,543.4
Source: Natural Resources Consultants, <i>Biological Resources Assessment of the 1,543-Acre Butterfield Specific Plan Area Located in the City of Banning and County of Riverside, CA</i> , September 9, 2010, pp 8	

Special Status Species

Data current as of June 2010 reveal that approximately 31 species of special status plants, 9 sensitive vegetation communities and 36 species of special status wildlife have been recorded by the California Natural Diversity Database (CNDDB) within the nine-quad regional study area since 1980. In general the Project site provides only marginally suitable habitat for special status plant species because of its disturbed condition, the result of historic agricultural and grazing uses. No sensitive plant species have been detected on the Project site or within proposed off-site improvement areas; refer to the complete list of special status species and community occurrences in the regional study area, located in Table II of Appendix C1, *Biological Resources Assessment*, of this EIR. Table II of the Biological Resources Assessment also provides information regarding sensitive wildlife species in the region.

The site contains marginally suitable habitat for the burrowing owl (*Athene cunicularia*) and many-stemmed dudleya (*Dudleya multicaulis*). The *Biological Resources Assessment* conducted by Natural Resource Consultants (Appendix C1) noted that a pair of Burrowing owls (*Athene*

cunicularia) was detected on site during focused surveys in 2007 and 2010, but not during surveys in 2005 and 2008. A total of six other special status wildlife species were also observed on the site.

- **Burrowing Owl:** Species present. The western burrowing owl is listed by the California Department of Fish and Game (CDFG) as a California Bird Species of Special Concern. Surveys to determine the presence/absence of burrowing owl on the site and on off-site improvement areas were conducted in 2005, 2007, 2008, and 2010. NRC biologists conducted focused surveys for burrowing owls using the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* protocols recommended by the MSHCP and based upon the California Department of Fish and Game (CDFG) and California Burrowing Owl Consortium recommendations. All rodent and squirrel burrows observed on the site were assessed for the suitability for use by burrowing owls and were inspected for evidence of use by the presence of burrowing owl indicative sign (white wash, pellets, scat, feathers and bone fragments). Linear transects were walked approximately 30 meters (100 feet) apart to provide 100 percent coverage of suitable habitat on the site and a 150 meter buffer around the site in accessible areas. All burrows observed on site were assessed for burrowing owl use and, if any evidence of use by burrowing owls was observed, the burrow was, for the purposes of this study, recorded as an “active burrow.” NRC biologists conducted surveys in May 2005 and 2008. No burrowing owls or indicative sign were detected on site. In March of 2007, a single pair of burrowing owls and six active owl burrows were observed by NCR biologists during a survey near Smith Creek. In June of 2010, a single pair of burrowing owls and five active burrows were again observed on-site in and around Smith Creek. No burrowing owls or sign was observed in or around the proposed off-site improvement areas.
- **Sensitive Plant Species:** A habitat suitability assessment for MSHCP narrow endemic plants and other special status plants was conducted during the biological surveys performed in May 2005, September 2006, and June 2010 by NCR biologists. No suitable habitat for Yucaipa onion and many-stemmed dudleya was found on- or off-site. The site does not contain suitable clay soil substrates for either species and the site is outside the elevation range of the many stemmed dudleya. No special status plant species have been detected on the site during the field surveys.
- **California Gnatcatcher:** Habitat suitability for the California gnatcatcher (*Poliophtila californica*) was assessed during the general biological survey. Based on the small extent of chaparral vegetation, and the size and condition of the disturbed coastal sage scrub vegetation, NCR biologists determined that no suitable habitat for this species occurs on-site nor in off-site areas that would potentially be affected by infrastructure improvements.

- **Other Sensitive Wildlife Species:** Six sensitive wildlife species, including the double-crested cormorant (*Phalacrocorax auritus*), northern harrier (*Circus cyaneus*), California horned lark (*Eremophila alpestris actia*, SC), loggerhead shrike (*Lanius ludovicianus*), coyote (*canis latrans*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), have been observed on or flying over the site in the course of protocol surveys.

Plant and Wildlife Diversity

Frequent site disturbance associated with agricultural operations has resulted in low plant and wildlife diversity relative to nearby undisturbed land. In addition to disturbance from cattle grazing, the site has been subject to periodic fire disturbance.

Wildlife Movement

The project site is bounded by residential, commercial and highway development to the north, west and south. On-site biological surveys have found no evidence of wildlife corridors or habitat linkages. Regionally, wildlife movement occurs in the San Bernardino Mountain foothills to the north and east of the site. Residential and commercial development west and south of the site prevents wildlife movement from those directions. The site's proximity to natural open space to the north and east does, however, provide a point of access to the movement corridors for on-site live-in species.

Jurisdictional Waters, Riparian/Riverine Habitat and Vernal Pools.

Potential USACE jurisdiction on site totals 9.67 acres, of which less than 0.01 acre consists of jurisdictional wetlands. All potential USACE jurisdictional waters with the Project area are ephemeral and considered to be Non-Relatively Permanent Waters (non-RPWs). CDFG jurisdiction on site totals 11.53 acres, of which 0.43 acre is vegetated riparian habitat. These areas include the less than 0.4 acre of southern willow scrub mapped by NRC in 2010. Detailed descriptions and mapping for these "jurisdictional areas" is provided in Appendix C2, and are summarized in Exhibits 4.4-2 and 4.4-3.

USACE jurisdiction off-site totals 0.15 acre within Drainage A. None of this jurisdictional area includes wetlands. Drainage A is an ephemeral, concrete-lined drainage also known as Pershing Channel, which is located on the west side of Highland Home Avenue along the southeastern Project boundary. Drainage A accepts nuisance water and storm water from a portion of the Project area and the adjacent residential neighborhood and flows in a general north to south direction for 1,651 linear feet within the site before being conveyed under the Wilson Street via a culvert.

Smith Creek is an ephemeral drainage, which flows in a general north to south direction from the adjacent foothills north of the Project site. Approximately 330 linear feet of Smith Creek off-

site at the northern project boundary would be impacted by improvements associated with the development of the proposed project. The Creek enters the site at its northern boundary near the proposed extension of Brookside Avenue. Smith Creek flows through the Project area for 11,429 linear feet before its natural alignment is interrupted by Wilson Street and its flows are conveyed through a culvert beneath Wilson Street to a point of discharge, at which point the Creek continues to flow south/southeast until it converges with the Whitewater River. Off-site drainage improvements to the south of the Project site will impact approximately 200 linear feet of Smith Creek south of Wilson Street. CDFG jurisdiction extends to this off-site portion of Smith Creek and totals 0.23 acre, of which 0.08 acre is vegetated riparian habitat. Potential CDFG jurisdiction on-site totals 11.57 acres, of which 0.35 acre consists of vegetated riparian habitat. A total of 33,890 linear feet of streambed is present. Potential CDFG jurisdiction associated with the off-site portions of Smith Creek totals 0.23 acres, of which 0.08 acres consist of vegetated riparian habitat¹. A total of 530 linear feet of streambed is present within the off-site portions of Smith Creek.

Colorado River Basin Regional Water Quality Control Board (Regional Board) jurisdiction at the site totals 10.14 acres, of which less than 0.01 acre is jurisdictional wetlands. Regional Board jurisdiction also extends off-site immediately south of the Wilson Street culvert, where Smith Creek flows exit the site, and immediately north of PA 71, where Smith Creek flows enter the site, covering a total of 0.15 acre, none of which is jurisdictional wetlands.

The Colorado River Basin Regional Water Quality Control Board (Regional Board) regulates potential impacts to beneficial uses described in the Regional Board's Basin Plan. The following beneficial uses are listed for Ephemeral Streams and Washes within the Banning Hydrologic Sub-Unit (719.31): (1) Groundwater Recharge, (2) Non-Water Contact Recreation, (3) Wildlife Habitat; and (4) Freshwater Replenishment. Each beneficial use is described below:

1. Groundwater Recharge: Groundwater recharge waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extraction, maintaining water quality, or halting saltwater intrusion into freshwater aquifers.
2. Non-Water Contact Recreation: Non-contact water recreation waters are used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water would be reasonably possible. These uses may include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities.

¹ Under the MSHCP, riparian/riverine habitat is defined as lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.

3. Wildlife Habitat: Wildlife habitat waters support wildlife habitats that may include, but are not limited to, the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.
4. Freshwater Replenishment: Freshwater replenishment waters are used for natural or artificial maintenance of surface water quantity or quality.

Based upon the beneficial uses noted for the Project area in the Basin Plan, Regional Board staff would regulate potential disturbance to wildlife habitat beneficial uses (biological resources) within the on site and off site streambeds pursuant to Section 13260 of the California Water Code, which would be incorporated into the Project's Section 401 Water Quality Certification for drainages regulated under Section 404 of the Clean Water Act and incorporated into a Waste Discharge Order for isolated waters that would not be regulated by USACE pursuant to Section 404 of the Clean Water Act, but would be regulated pursuant to Section 13260 of the California Water Code.

The Project site also supports several ephemeral drainage features, which are a natural feature of many watersheds in the arid Southwest characterized by seasonal flowing water or flow only during rainfall events. These drainage features total approximately 0.47 acre, and are considered isolated pursuant to the January 9, 2001 U.S. Supreme Court decision titled *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, et al.* (SWANCC)² and do not support a surficial connection to another USACE jurisdictional water. Further, these isolated drainage features would be considered non-RPWs, which do not support a significant biological, chemical, or physical nexus to the closest Traditionally Navigable Water (TNW), the Salton Sea, and would not be subject to USACE jurisdiction pursuant to the U.S. Supreme Court decision in *Rapanos v. United States* and *Carabell v. United States*³ (Rapanos). None of these isolated waters exhibit wetland characteristics.

No vernal pools are present on the site and there is, therefore, no suitable habitat for fairy shrimp.

² The SWANCC decision indicated that drainages not supporting a surficial connection to Corps jurisdictional waters are isolated and not subject to Corps jurisdiction pursuant to Section 404 of the CWA.

³ *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers*, 547 U.S. – (2006). In the guidance, the agencies offer three categories: (1) certain types of waters over which they “will assert jurisdiction” (traditional navigable waters, wetlands adjacent to such waters, relatively permanent non-navigable tributaries of such waters, and wetlands directly abutting such tributaries), (2) other types of waters for which they will consider on case-by-case whether they have a “significant nexus” with a traditional navigable water, and (3) isolated waters, which may have an interstate commerce connection other than migratory birds. The Corps also noted that other “features” over which they “generally will not assert jurisdiction,” include areas such as gullies, erosional features, and ditches excavated in and draining uplands.

Off-Site Biology

As shown on Exhibit 4.4-1, the proposed off-site improvement areas include the 21-acre parcel at the northwest boundary of the site and off-site segments of Smith Creek both north and south of the Specific Plan boundary. They contain non-native grasslands supporting agricultural (cattle grazing) uses, other annual grassland, disturbed coastal sage scrub, mule fat scrub, sandy wash, and disturbed/developed vegetation communities. Off-site agricultural use consists solely of cattle grazing and, accordingly, most off-site areas affected by proposed drainage infrastructure contain non-native grass species similar to those found on-site mulefat, California buckwheat (*Eriogonum fasciculatum*) and Palmer's goldenbush (*Ericameria palmeri*) with openings of non-native grasses.

4.4.2.2 REGULATORY FRAMEWORK

As part of the proposed Project's review and approval process, the Project must demonstrate compliance with all of the terms, provisions, and requirements of applicable laws and regulations enforced by Federal, State, and local regulating agencies for any impacts to sensitive habitats, sensitive plant and wildlife species, wetlands, riparian habitats, and stream courses. These existing regulatory programs are summarized below.

Migratory Bird Treaty Act (MBTA)

The *Migratory Bird Treaty Act (MBTA)* (16 USC Sections 703-711) includes provisions for the protection of migratory birds, including non-permitted take of migratory birds, under the authority of the USFWS. The MBTA protects over 800 species, including geese, ducks, shorebirds, raptors, songbirds, and many common species. This treaty with Canada, Mexico, and Japan makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season.

Federal Endangered Species Act of 1973 (ESA)

The *Endangered Species Act (ESA)* protects plants and animals that are listed by the federal government as "endangered" or "threatened." Two sections, §7 and §9 are central. Section 9 makes it unlawful for anyone to "take" a listed animal, and this includes significantly modifying its habitat and applies to private parties and private land. Section 7 does not apply to private parties but to federal agencies; however, it covers the issuing of permits for private activities, such as Section 404 permits issued by USACE to entities that want to do construction work in waters or wetlands. Specifically, Section 7 imposes an affirmative duty on federal agencies to ensure that their actions, including permitting, are not likely to jeopardize the continued existence of a listed species (both plant and animal) or result in the destruction or

modification of critical habitat. The ESA is enforced by the U.S. Fish and Wildlife Service (USFWS).

USFWS produced an updated list of candidate species for listing in June 2002 (Federal Register: Volume 67, Number 114, 50 CFR Part 17). Candidate species are regarded by USFWS as candidates for addition to the "List of Endangered and Threatened Wildlife and Plants." Although candidate species are not afforded legal protection under the ESA, they typically receive special attention from federal and state agencies during the environmental review process.

Section 404 of the Federal Clean Water Act (33 U.S.C. 1344)

Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or filled material into waters of the United States; refer to Definitions above. Section 404 of the CWA establishes a program to regulate the discharge of dredged and fill materials into waters of the United States, including wetlands. Activities regulated under this program include fills for development, infrastructure development, and conversion of wetlands to uplands for farming or other development activity. Section 404 prohibits the discharge of dredged or fill material if that discharge jeopardizes the continued existence of species listed as endangered or threatened under the ESA, or results in likelihood of the destruction or adverse modification of a habitat which is determined by the Secretary of Interior or Commerce, to be a critical habitat under the ESA except as provided under section 404(b) (2). USACE issues a 404 permit to authorize and condition activity that could impact jurisdictional waters and associated habitat.

Clean Water Act, Section 401 Certification – California 401 and Wetlands Program

The State Porter-Cologne Act grants jurisdiction over waters of the State (refer to Definitions above) to the Regional Water Quality Control Board (RWQCB) through its Section 401 Water Quality Certification Program. Section 401 of the CWA requires that:

"...any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act."

In addition to issuing waste discharge permits, which are addressed in Section 4.9 (*Hydrology and Water Quality*) of this EIR, Regional Boards retain jurisdiction over vernal pools and other "isolated wetlands" that are not covered by USACE jurisdictional limitations. This program regulates discharges of fill and dredged material under Clean Water Act Section 401 and the Porter-Cologne Water Quality Control Act. While the 401 Permit program protects all waters in its regulatory scope, it gives the RWQCB special responsibility for wetlands, riparian areas, and

headwaters because these water bodies have high resource value, are vulnerable to filling and are not systematically protected by other programs. The Regional Board, through the 401 permit process, is involved with the protection of special-status species and regulation of hydromodification to natural creeks, streams, rivers and other water bodies impacts.

California Fish and Game Code

Pursuant to Division 2, Chapter 6, Section 1600-1616 of the *California Fish and Game Code*, the California Department of Fish and Game (CDFG) regulates all diversions, obstructions, or changes in the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. The CDFG jurisdictional limits closely mirror those of the USACE. Exceptions are CDFG's exclusion of isolated wetlands, the addition of artificial stock ponds and irrigation ditches and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

Section 1602 of the Code requires an entity to notify CDFG of any proposed activity that could substantially modify a river, stream, or lake. Notification is required for any activity that will (1) substantially divert or obstruct the natural flow of any river, stream or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream or lake; or (3) deposit or dispose of debris, waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. If CDGF determines that the proposed activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement is required, which contains reasonable conditions necessary to protect these resources.

CDFG and USFWS Species of Concern

State-listed threatened and endangered species are protected under provisions of the *California Endangered Species Act* (CESA). Activities that may result in "take" of individuals are regulated by the California Department of Fish and Game (CDFG). Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFG has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The CDFG has produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection.

At the federal level, USFWS also uses the label “species of concern” as an informal term that refers to species which might be in need of concentrated conservations actions.

CDFG Code Section 3503.5

Birds of prey are protected under the *California Fish and Game Code*. Section 3505.5 of the Code states that it is “unlawful to take, possess, or destroy any birds in the order of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered a “take” by the CDFG.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

In 2003, the County of Riverside adopted the *Western Riverside Multiple Species Habitat Conservation Plan (MSHCP)*. The MSHCP is a regional plan, implemented by the Riverside Conservation Agency (RCA), that is intended to provide protection to plants and animals listed as threatened or endangered by the federal or State government, as well as many other species thought to be declining and that may become listed in the future. The MSHCP Implementing Agreement (IA) sets forth the implementation requirements for the MSHCP, as well as procedures and minimization measures related to take of habitats and species considered for conservation. Implementation of the MSHCP authorizes participating jurisdictions to “take” specified plant and wildlife species within the MSHCP Conservation area. In addition, the wildlife agencies, namely CDFG and USFWS, allow take of habitat or individual species outside of the MSHCP Conservation area in exchange for the assembly and management of a coordinated MSHCP Conservation area. The assembly and long-term management of the MSHCP Conservation area is the responsibility of the RCA, as well as private and public entities that conduct activities that would potentially impact the habitats and species considered for conservation under the MSHCP.

The City of Banning executed the Implementing Agreement with the County on November 23, 2003 and adopted Ordinance 1304 on November 12, 2003, which amended its Municipal Code to establish procedures and requirements for the implementation of the MSHCP. *Article I of MC Chapter 12.52* contains policy and procedural requirements, while Article II establishes an MSHCP mitigation fee, which is imposed on all development within the City, and which will be assessed for projects undertaken pursuant to the Butterfield Specific Plan as individual development projects are approved for construction permits. In addition to specifying “*criteria areas*,” 90 acres of which are located within the City, the MSHCP includes requirements for the protection of *Riparian/Riverine Areas and Vernal Pools* (MSHCP Section 6.1.2) and *Narrow Endemic Species* (MSHCP Section 6.1.3). In addition, the MSCHP includes *Urban/Wildlands Interface Guidelines* (MSCHP Section 6.1.4). An MSHCP Consistency Analysis is required for all

discretionary projects within jurisdictions of MSHCP co-permittees such as the City of Banning. Special provisions apply to projects located within designated criteria cells.

City of Banning General Plan and General Plan EIR

The City of Banning General Plan addresses biological resources in its Open Space and Conservation Element and its Biological Resources Element, both of which are a part of the General Plan's Chapter on Environmental Resources.

Open Space and Conservation Policies related to biological resources include the following:

- **OS&C Goal 1:** Open space and conservation lands that are preserved and managed in perpetuity for the protection of environmental resources or hazards, and the provision of enhanced recreational opportunities and scenic qualities in the City.
- **OS&C Goal 2:** A balance between the City's built and open space environment and local and regional protection and preservation of its unique environment.
- **OS&C Policy 1:** Identify and assess lands in the City, its sphere-of-influence and planning area, that are suitable for preservation as public or private, passive or active open space.
- **OS&C Policy 2:** The City shall protect natural hillsides above the toe of slope in perpetuity as undeveloped open space, and shall provide specific parameters under which development can occur within the Rural Residential – Hillside and Ranch/Agriculture Residential – Hillside land use designations. For purposes of this General Plan, the toe of slope is defined as the dividing line between rock formations where there is a noticeable break in the angle of slope from steep to shallow.
- **OS&C Policy 4:** The City shall preserve all watercourses and washes necessary for regional flood control, ground water recharge areas and drainage for open space and recreational purposes.

Goals and policies contained in the Biological Resources Element include the following

- **Bio Goal:** A pattern of community development that supports a functional, productive, harmonious and balanced relationship between the built and natural environment.
- **Bio Policy 1:** The City shall continue to participate in the preservation of habitat for endangered, threatened and sensitive species.

- **Bio Policy 2:** As part of the development review process, the City shall evaluate projects based on their impact on existing habitat and wildlife, and for the land's value as viable open space.
- **Bio Policy 3:** The City shall encourage and cooperate with other agencies in establishing multiple use corridors that take advantage of drainage channels and utility easements as wildlife corridors, public access and links between open space areas and the built environment.
- **Bio Policy 4:** Drainage channels, utility corridors and pipeline easements shall be preserved in natural open space to the greatest extent possible.
- **Bio Policy 5:** The City shall promote the protection of biodiversity and encourage an appreciation of the natural environment and biological resources.

The General Plan EIR identifies mitigation measures to protect and preserve the City's biological resources. These include the following Project-relevant mitigation measures:

Biological Resources Mitigation Measure A

The City shall comply with the requirements of the Western Riverside MSHCP.

Biological Resources Mitigation Measure C

Biological surveys for burrowing owls should be performed wherever sufficient open space and suitable habitat is present within the City, as mapped for the MSHCP and shown in the biological report for the General Plan.

Biological Resources Mitigation Measure D

Biological surveys should be performed for Yucaipa Onion, Many-stemmed Dudleya and Los Angeles Pocket Mouse in areas specified by the MSHCP, as mapped for the MSHCP and shown in the biological report for the General Plan.

Biological Resources Mitigation Measure E

The City shall retain land use designations that provide Open Space Resources and Water Conservation to protect the most important open spaces within the City.

Biological Resources Mitigation Measure I

Development projects proposing to alter riparian community in major drainages (blueline streams) should be required to consult with appropriate state and/or federal agencies regulating development impacting those drainages. Such alteration may

require permits from the USACE and/or the CDFG. Mitigation as required by those permitting agencies may be in addition to those requirements referenced in the MSHCP.

Biological Resources Mitigation Measure K

The City shall prepare and maintain a comprehensive list of plant materials, which shall include native and non-native, drought tolerant trees, shrubs and groundcover that complement the local environment. A list of prohibited plant materials shall also be prepared. The Butterfield Specific Plan Landscape Plan shall be consistent with the City's list of plant materials.

City of Banning Municipal Code – Chapters 12.52 (Western Riverside County MSHCP; 17.20 (Open Space Districts); 17.24.070 (Development Standards – Environmental Resources and Constraints).

The City requires the evaluation of potential biological resources impacts on a project-by-project basis through the CEQA Initial Study process. Prior to issuance of building permits the Planning and Building Departments must ensure that all required biological resource mitigation actions, including off-site mitigation and/or payment of appropriate impact fees, have been satisfied. Chapter 12.52 incorporates compliance with the provisions of the MSHCP into the City Code; Chapter 17.20 establishes Open Space Districts, including those for resource conservation; and Chapter 17.24.070 requires review of all development proposals pursuant to CEQA prior to approval.

4.4.3 SIGNIFICANCE THRESHOLD CRITERIA

The criteria used to determine the significance of potential impacts related to biological resources are from the Initial Study checklist in Appendix G of the State CEQA Guidelines. The project would result in significant impact related to biological resources if it would:

- a) *Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service, and meets the definition of Section 15380(b),(c), or (d) of the CEQA Guidelines*
- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service.*
- c) *Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means.*

- d) *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites; refer to Section 7.0, Effects Found Not to be Significant.*
- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; refer to Section 7.0, Effects Found Not to be Significant..*
- f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan.*

4.4.4 IMPACT ANALYSIS AND MITIGATION MEASURES

ANALYTIC METHOD

Section 15065(a), *Mandatory Findings of Significance*, of the CEQA Guidelines states that a project may have a significant effect on the environment if, “ . . . the project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an Endangered, Rare or Threatened species.” An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or ecological context. The definition of “significant,” as applied for this assessment, considered both the local and regional status of each resource. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations.

Generalized Natural Communities of Western Riverside County consist of urban and disturbed areas, agriculture, areas of water, coastal sage scrub, sonoran desert scrub, sagebrush scrub, chaparral, grassland, playa and vernal pool areas, meadow and marsh areas, riparian and bottomland areas, oak woodland/forest, and coniferous woodland/forest. For more detail regarding the descriptions of these Natural Communities, refer to Table 4.6.A, *Generalized Natural Communities of Western Riverside County and Associated Listed, Proposed, and Candidate Species* located in the Riverside County Integrated Project General Plan Final Program Environmental Impact Report Volume I.⁴ The City of Banning is also located entirely within The Pass Area Plan per the MSHCP.I Impacts may be locally important but not significant if they would not substantially diminish or result in the permanent loss of an important resource on a population- or region-wide basis, although they may result in an adverse alteration of existing conditions.

⁴ <http://www.rctlma.org/genplan/content/eir/volume1.html#4.6>.

Section 15380 of CEQA indicates that a lead agency can consider a non-listed species to be Rare or Endangered for the purposes of CEQA if the species can be shown to meet the criteria in the definition of Rare or Endangered. For the purposes of this discussion, the current scientific knowledge on the population size and distribution for each special status species was considered according to the definitions for Rare and Endangered listed in Section 15380 of CEQA, and mitigation measures are recommended where appropriate.

Project-related impacts to biological resources take two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of natural habitats (i.e., vegetation or plant communities), which in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts also include the destruction of individual plants or wildlife, which is typically the case in species of low mobility (i.e., plants, amphibians, reptiles, and small mammals). The collective loss of individuals in these manners may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and, hence, population stability. Indirect impacts are considered to be those that involve the effects of increase in ambient levels of sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native animals).

Indirect impacts may be associated with the construction and/or eventual habitation/operation of a project; therefore, these impacts may be both short-term and long-term in their duration. These impacts are commonly referred to as “edge effects” and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

The determination of impacts in this analysis is based on both the features of the proposed Project and the biological values of the habitat and/or sensitivity of plant and wildlife species to be affected. Relevant project features (e.g., limits of grading and fuel modification) were supplied by the applicant. Project design features that avoid or preserve biological resources are taken into consideration and specifically described below prior to the assessment of potential adverse impacts. The Project design features and proposed mitigation measures are consistent with the MSHCP.

Based on an evaluation of the MSHCP survey requirements and mitigation measures, the mitigation measures proposed in this document are in compliance with Section 6.0 of the MSHCP and are intended to provide full mitigation under CEQA for impacts to species and habitats covered by the MSHCP.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing local, state and federal regulations noted below will avoid or mitigate potential biological resource impacts. The following Project Design Features will also reduce, avoid or off-set potentially adverse biological resource impacts:

- 1) The Project is proposed to be phased, with the initial Phase IA grading limited to the area necessary to achieve mass balancing and proper drainage of the overall property, leaving approximately 40 percent (over 500 acres) of the site in its current native condition until such time the remaining phases begin to develop. This phased development will create an interim condition of reduced biological resource impact.
- 2) The proposed Project has been planned to avoid all significant indirect impacts associated with drainage, toxics, lighting, noise, barriers, invasive species and brush management that could potentially occur on the Project site. Mitigation measures and best management practices will be implemented in compliance with MSHCP Wildlands/Urban Interface policies, thus reducing all indirect impacts on the Project site to a level that is less than significant; refer to Section 3.0, *Development Plan*, and 4.0, *Design Guidelines* of the *Butterfield Specific Plan*, and the analysis and mitigation measures contained in 4.1 (*Aesthetics, Light, and Glare*), 4.8 (*Hazards and Hazardous Materials*), Sections 4.9 (*Hydrology and Water Quality*), and 4.11 (*Noise*) and this Section of the EIR.
- 3) The Project includes approximately 428.8 acres of open space, including 253.9-acre golf course through which Smith Creek flows in addition to 66.5 acres of active recreation, 70.1 acres of natural open space (56.3 acres in the northeast corner of the Project), and 38.3 acres of drainage channel and basin areas as described in the Project Description. The golf course will incorporate native plant materials into its plant palette, particularly in those areas occupied by the Smith Creek alignment, for mitigation of biological impacts occasioned by the realignment of Smith Creek. The plant palette and re-vegetation associated with Smith Creek is designed to replicate natural conditions and to preserve and enhance biological values. Basin areas will be vegetated and the landscaping of active recreational areas will increase the availability of plant cover and trees on the site, providing habitat for birds and forage for birds of prey.
- 4) The Project incorporates drainage and water quality features that would maintain water quality within the Smith Creek and Pershing Channel drainages and preserve/enhance downstream water quality within the Smith Creek drainage, indirectly protecting the biological resources and functions of the drainage.
- 5) Project implementation would result in enhanced vegetative cover on the site, including trees and shrubs that could enhance the availability of nesting sites for migratory birds in the Project area as compared to the current nearly treeless condition of the Project site.

- 6) Following the initial Phase I mass grading of the Project site, the site will be reseeded and cattle grazing activities will be allowed to continue in areas prior to future development, which will preserve in an interim condition of the grassland areas that provide foraging habitat for birds of prey and vegetative cover for native species currently using the site.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.4-1: Sensitive Species and Habitats

Threshold: *Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS)?*

Determination: Less than Significant with Mitigation Incorporated

Sensitive biological resources are defined as species under study for classification as threatened or endangered, or have low population densities or a highly restricted range. According to data current as of June 2010, thirty-one species of special status plants, nine sensitive vegetation communities and thirty-six species of special status wildlife have been recorded by the California Natural Diversity Data Base (CNDDDB) within the nine-quad, approximately 500 square mile regional study area since 1980⁵. One additional special status plant species and four additional special status wildlife species have been called out in the MSCHP for the Project area, or were observed in the course of biological surveys on the site.

There may be other sensitive, but not federally- or state-listed, amphibian, reptile, bird and mammal species that potentially occur on site (i.e., the site occurs within the documented species' range and/or the existing habitat components are similar to those where this species has been detected elsewhere) but none were detected during the course of the Project's biological studies. Refer to Appendices C1 and C2 for a more detailed discussion.

In the build out condition, the Project will result in the development of the entire site, except for the natural open space areas designated for portions of PA 69, PA 73, PA74 and PA75, representing approximately 70.1 acres. In addition, the Project proposes to realign and reconstruct Smith Creek corridor; however, the realignment will not interfere in the natural

⁵ The 9-quadrangle includes the Yucaipa, Forest Falls, San Geronio Mountain, El Casco, Beaumont, Cabazon, Lakeview, San Jacinto, Lake Fulmar quadrangles. The best known USGS maps are those of the 7.5-minute, 1:24,000-scale quadrangle series. A scale of 1:25,000 is used for maps based on metric units (1 centimeter = 0.25 kilometer). The area portrayed on each sheet ranges from 64 square miles at latitude 30 degrees north to 49 square miles at latitude 49 degrees north.

functions of the creek and revegetation will result in an increased diversity and amount of native plants and other landscape vegetation along the creek banks and within the ultimate flow line. As noted in the Project Design Features, the retention of natural areas in the site's upper elevations and the revegetation of Smith Creek improve upon the provisions of the originally approved Deutsch Specific Plan, which proposed the channelization of Smith Creek without preservation or enhancement of existing habitat and did not provide for the retention of any natural open space.

Burrowing Owl. As burrowing owl habitat exists on-site and burrowing owls have been detected on-site in the past, pre-construction surveys for burrowing owl will be required prior to mass grading and subsequent rough grading for subdivision development pursuant to standard CDFG protocols as provided for in Mitigation Measure BIO-2.

Sensitive Plant Species. As no suitable habitat was found and no sensitive plant species were identified on site during protocol surveys conducted between March and August 2010, no significant impacts are anticipated, and no mitigation is required. While mixed chaparral was identified in the steeper elevations of the site, the vegetation mix did not include Riversidian sage scrub.

California Gnatcatcher (*Polioptila californica*). Although the site includes mixed chaparral in the higher elevations the vegetation mix does not included in the vegetation mix. Accordingly, there is no suitable habitat for California gnatcatcher on-site or within the off-site areas potentially impacted by infrastructure improvements covered by the habitat assessment survey. No California gnatcatchers were observed during any of the assessment and protocol surveys.

Nesting Birds. The Project contains primarily open grasslands. Trees of sufficient size to support nesting are located primarily along the site boundaries and include remnants of windrows. Transmission towers that traverse the interior of the site may provide nesting and roosting opportunities for birds, but no nests were observed during protocol surveys of the site. Undisced grasslands may provide vegetative cover sufficient to support ground nesting species, but none were identified during site surveys. Since disturbance to bird species during the nesting season (approximately mid-February to mid-August) would be a violation of the *Migratory Bird Treaty Act of 1918*. Nests and eggs of these species are also protected under *Fish and Game Code Section 3503*, preconstruction surveys for nesting birds will be required prior to the start of grading activities on the site pursuant to the requirements of Mitigation Measure BIO-1. Surveys would be required prior to any mass grading activity and prior to subsequent rough grading for individual subdivisions.

Other Sensitive Wildlife

Six sensitive wildlife species, including the double-crested cormorant (*Phalacrocorax auritus*), northern harrier (*Circus cyaneus*), California horned lark (*Eremophila alpestris actia*, SC),

loggerhead shrike (*Lanius ludovicianus*), coyote (*canis latrans*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), have been observed on or flying over the site in the course of protocol surveys. The existing grasslands that characterize the site provide both potential live-in and/or foraging habitat for these species. The gradual development of the site will, over time, eliminate these open grasslands and thus reduce available live-in and foraging habitat for these species within the City of Banning. However, alternative habitat is available in the general area of the site for these species and the gradual development of the site will allow species to relocate over time to more appropriate, less disturbed areas. The site's proximity to undisturbed natural open space to the north and east, and the maintenance of the Smith Creek channel provide opportunities for live-in wildlife to relocate or adapt, while habitat suitable for foraging exists throughout the Banning, Beaumont and adjacent unincorporated County areas. Accordingly, project development is not expected to result in a significant reduction of the populations of the species in the regional and projected long-term habitat impacts are therefore not considered significant and short term impact would be addressed through Mitigation Measures BIO-1 and BIO-2. and by requirements for the installation of landscape and re-seeding of mass graded areas of the site which would restore grassland habitat after mass grading and allow for gradual development and gradual displacement to new live-in and/or foraging sites. There is no nesting habitat for the double-crested cormorant on site.

Off-Site Infrastructure Impacts

Most off-site Project infrastructure will be located within the right of way of existing public streets or within developed or developing commercial and residential neighborhoods and would have no direct or indirect impact on biological resources. Off-site infrastructure improvements with potential to impact biological resources are limited to those associated with the upstream and downstream improvements associated with the Smith Creek drainage. These drainage improvements will require modification of the existing drainage channel upstream of Brookfield and downstream of Wilson. Impacts to the Smith Creek drainage temporary in nature and will be mitigated through re-vegetation and habitat enhancement once improvements are completed. Since the Smith Creek drainage does not host sensitive species, no impacts would be anticipated.

Mitigation Measures

The following mitigation measure will reduce potentially significant impacts to nesting migratory birds or burrowing owls during the construction phase of the project to less than significant levels. Potential adverse Project effects are also "mitigated" through the various existing regulations and ordinances noted above. In addition, the Project has reduced, avoided or offset potentially adverse impacts to biological resources through Project Design Features noted above (all of which are summarized in Section 3.8, *Project Design Features*):

- BIO-1** Prior to the commencement of grading during the nesting season (approximately mid-February through mid-August), all suitable habitat shall be surveyed for the presence of nesting birds by a qualified biologist prior to site disturbance. Should any active nests be located, construction must comply with Migratory Bird Treaty Act requirements, including an adequate construction buffer around active nests or avoiding construction during the nesting season if an adequate buffer is infeasible.
- BIO-2** A preconstruction clearance survey for burrowing owl will be performed within 30 days prior to ground disturbance in potentially suitable habitat within the site, pursuant to CDFG protocols. The preconstruction survey will include a 300-foot buffer if between February 1 and August 31 (nesting season) and a 100-foot buffer if outside of this period. If owls are found within the survey area during the nesting season, construction activities will not occur within 300 feet of the occupied burrows until nesting is completed. A qualified biologist must confirm that the nesting effort has been completed prior to the removal of the work buffer restriction. If owls are found within the disturbance footprint outside of the February 1 through August 31 period, passive relocation (e.g. use of one way doors and collapse of burrows) will occur. These surveys and mitigation for burrowing owl are consistent with Section 6.3.2, *Additional Survey Needs and Procedures* of the MSHCP.

Impact 4.4-2: Sensitive Natural Communities

Threshold: *Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS?*

and

Threshold: *Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Determination: Less than Significant with Mitigation Incorporated

The Project site contains approximately 0.41 acre of riparian/riverine habitat associated with Smith Creek and Smith Creek Tributary A-1 and approximately 0.02 acre of jurisdictional wetlands. It is not located within an MSHCP Criteria Cell or Conservation Area. The primary vegetative community consists of non-native grasslands, most of which is used for or has been used for cattle grazing. Habitat diversity is limited and the grasslands do not contain sensitive plant species or sensitive natural communities identified in either the MSHCP or by the CDFG or USFWS.

The Project would have permanently impact the approximately 0.01 acre of jurisdictional wetland identified on the site in connections with Smith Creek Tributary A-1 and approximately 0.42 acre of riverine/riparian habitat. Permanent impacts to riverine/riparian habitat will be mitigated through the re-vegetation of Smith Creek channel upon completion of its realignment and the construction of detention facilities and an upstream reservoir needed to control storm flows through the area. The impacted wetland is not of sufficient size to require mitigation pursuant to existing State, federal, or regional regulations. Habitat and non-wetland waters subject to the jurisdiction of the USACE CDFG, and/or Colorado River Basin Regional Water Quality Control Board are detailed below in Tables 4.4-1, -2, -3, -4, -5, -6 and -7. The jurisdictional areas detailed in these tables overlap over most of their extent. Detailed descriptions of the hydrologic features and biological resources of each of the drainage features identified below can be found in either Section 4.4.2.1, *Existing Conditions* or in Appendix C-2, *Jurisdictional Delineation*, of this EIR. Also, refer to Exhibits 4.4-2 & 4.4-3 for a Jurisdictional Delineation Map, and Exhibit 4.1-B, photo #7 & Exhibit 4.1-1D, photo #4 for portions of Smith Creek on and off-site views.

Because site development will result in permanent impacts to wetlands and riparian/riverine habitat, compliance with the MSCHP will require preparation of a Determination of Biologically Equivalent or Superior Preservation (DBESP) report. The Project will also be required to obtain 404 and 401 permits pursuant to the provisions of the Clean Water Act, and a 1602 Agreement pursuant to the California Fish and Game Code. Mitigation measures required by the County RCA and/or by the USACE, CDFG, or RWQCB will be integrated into the DBESP and included in the conditions of approval for the various jurisdictional permits.

USACE Jurisdictional Impacts

Potential *permanent* impacts to USACE jurisdiction total 1.17 acres, of which 0.01 acres consist of wetlands. Potential *temporary* impacts total 8.65 acres, none of which consist of jurisdictional wetlands. Table 4.4-2 summarizes both the USACE jurisdictional areas and the potential permanent impacts to USACE jurisdiction while Table 4.4-3 summarized the potential temporary impacts to the on-site Smith Creek channel area identified in line 1 of Table 4.4.2.

Table 4.4-2
Summary of Potential Permanent Impacts to USACE Jurisdictional Waters

Drainage Features	USACE Non-Wetland Waters (acres)	USACE Wetlands (acres)	Total USACE Juris. (acres)	Permanent Impacts to Non-Wetland Waters (acres)	Perm. Impacts to USACE Wetlands (acres)	Total Perm. Impacts to USACE Juris. (acres)
Smith Creek On-Site	9.25	0	9.25	0.6	0	0.6
Smith Creek Off-Site	0.15	0	0.15	0.15	0	0.15
Drainage A	0.15	0	0.15	0.15	0	0.15
Tributary A-1	0.01	0.01	0.02	0.01	0.01	0.02
Drainage B	0.03	0	0.03	0.03	0	0.03
Drainage C	0.04	0	0.04	0.04	0	0.04
Drainage D	0.06	0	0.06	0.06	0	0.06
Tributary D-1	0.01	0	0.01	0.01	0	0.01
Drainage E	0.05	0	0.05	0.05	0	0.05
Drainage N	0.06	0	0.06	0.06	0	0.06
Totals	9.81	0.01	9.82	1.16	0.01	1.17

Table 4.4-3
Summary of Temporary Impacts to USACE Jurisdictional Areas of Smith Creek On-Site

Drainage Features	USACE Non-Wetland Waters (acres)	USACE Wetlands (acres)	Total USACE Juris. (acres)	Temporary Impacts to Non-Wetland Waters (acres)	Temp. Impacts to USACE Wetlands (acres)	Total Temp. Impacts to USACE Jurisdiction (acres)
Smith Creek On-Site	9.25	0	9.25	8.65	0	8.65
Total	9.25	0	9.25	8.65	0	8.65

Source: Glen Lukos Associates, Jurisdictional Delineation of the 1,543 Acre Butterfield Specific Plan Development Project, located in the City of Banning and County of Riverside and the 21.08-Acre Off-Site Improvement Area, August 31, 2010 (see Appendix C2) Separate GA memo dated 9-9-10 also potential impact analysis.

CDFG Jurisdictional Impacts

Potential *permanent* impacts to CDFG jurisdiction total 2.47 acres, of which 0.41 acre consists of vegetated riparian habitat. Table 4.4-4 summarizes potential permanent impacts to CDFG jurisdiction. Table 4.4-5 summarizes potential *temporary* impacts to CDFG jurisdiction, which includes 0.02 acre of jurisdictional riparian area that will subsequently be restored. Impacts to

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4.4 BIOLOGICAL RESOURCES

CDFG jurisdictional areas will be addressed in the DBESP and regulatory compliance process noted below.

Table 4.4- 4
Summary of Potential Permanent Impacts to CDFG Jurisdiction

Drainage Features	CDFG Unveg. Streambed (acres)	CDFG Vegetated Riparian Habitat (acres)	Total CDFG Jurisd.	Perm. Impacts to CDFG Unveg. Streambed (acres)	Perm. Impacts to CDFG Vegetated Riparian Habitat (acres)	Total Perm. Impacts to CDFG Jurisd. (acres)
Smith Creek On-Site	10.03	0.02	10.05	0.84	0	0.84
Smith Creek Off-Site	0.15	0.08	0.23	0.15	0.08	0.23
Drainage A	0.15	0	0.15	0.15	0	0.15
Tributary A-1	0.03	0.33	0.36	0.03	0.33	0.36
Drainage B	0.03	0	0.03	0.03	0	0.03
Drainage C	0.05	0	0.05	0.05	0	0.05
Drainage D	0.06	0	0.06	0.06	0	0.06
Tributary D-1	0.01	0	0.01	0.01	0	0.01
Drainage E	0.05	0	0.05	0.05	0	0.05
Feature F	0.13	0	0.13	0.13	0	0.13
Feature G	0.06	0	0.06	0	0	0
Feature H	0.01	0	0.01	0.01	0	0.01
Feature I	0.08	0	0.08	0.08	0	0.08
Tributary Feature I-1	0.02	0	0.02	0.02	0	0.02
Feature J	0.06	0	0.06	0.06	0	0.06
Tributary Feature J-1	0.02	0	0.02	0.01	0	0.01
Feature K	0.08	0	0.08	0.08	0	0.08
Feature L	0.13	0	0.13	0.13	0	0.13
Feature M	0.01	0	0.01	0.01	0	0.01
Drainage N	0.06	0	0.06	0.06	0	0.06
Feature O	0.05	0	0.05	0.05	0	0.05
Feature P	0.06	0	0.06	0.05	0	0.05
Totals	11.33	0.43	11.76	2.06	0.41	2.47

**Table 4.4-5
Summary of Potential Temporary Impacts to CDFG Jurisdiction**

Drainage Features	CDFG Unveg. Streambed (acres)	CDFG Vegetated Riparian Habitat (acres)	Total CDFG Jurisd.	Temporary Impacts to CDFG Unveg. Streambed (acres)	Temporary Impacts to CDFG Vegetated Riparian Habitat (acres)	Total Temporary Impacts to CDFG Jurisdiction (acres)
Smith Creek On-Site	10.03	0.02	10.05	9.19	0.02	9.21
Tributary Feature J-1	0.02	0	0.02	0.01	0	0.01
Totals	10.05	0.02	10.07	9.2	0.02	9.22

Regional Board Jurisdictional Impacts

The Colorado River Basin Regional Board jurisdiction at the site totals 10.14 acres, of which less than 0.01 acre consists of jurisdictional wetlands. Potential Regional Board jurisdiction associated with the off site portions of Smith Creek totals 0.15 acres, none of which consist of jurisdictional wetlands. A total of 530 linear feet of Regional Board-regulated streambed is present within the off site portions of Smith Creek. Table 4.4-6 summarizes potential permanent impacts to Regional Board Jurisdiction.

**Table 4.4-6
Summary of Potential Permanent Impacts to Regional Board Jurisdiction**

Drainage Features	Non- Wetland Waters (acres)	Wetlands (acres)	Total Regional Board Jurisd. (acres)	Perm. Impacts to Non- Wetland Waters (acres)	Perm. Impacts to Wetlands (acres)	Total Permanent Impacts to Regional Board Jurisdiction (acres)
Smith Creek On-Site	9.25	0	9.25	0.6	0	0.6
Smith Creek Off-Site	0.15	0	0.15	0.15	0	0.15
Drainage A	0.15	0	0.15	0.15	0	0.15
Tributary A-1	0.01	0.01	0.02	0.01	0.01	0.02
Drainage B	0.03	0	0.03	0.03	0	0.03
Drainage C	0.04	0	0.04	0.04	0	0.04
Drainage D	0.06	0	0.06	0.06	0	0.06
Tributary D-1	0.01	0	0.01	0.01	0	0.01
Drainage E	0.05	0	0.05	0.05	0	0.05

Table 4.4-6
Summary of Potential Permanent Impacts to Regional Board Jurisdiction (*continued*)

Drainage Features	Non-Wetland Waters (acres)	Wetlands (acres)	Total Regional Board Jurisd. (acres)	Perm. Impacts to Non-Wetland Waters (acres)	Perm. Impacts to Wetlands (acres)	Total Permanent Impacts to Regional Board Jurisdiction (acres)
Feature F	0.13	0	0.13	0.13	0	0.13
Feature G	0.06	0	0.06	0	0	0
Feature H	0.01	0	0.01	0.01	0	0.01
Feature I	0.08	0	0.08	0.08	0	0.08
Tributary I-1	0.02	0	0.02	0.02	0	0.02
Feature J	0.06	0	0.06	0.06	0	0.06
Tributary Feature J-1	0.02	0	0.02	0.01	0	0.01
Feature K	0.08	0	0.08	0.08	0	0.08
Feature M	0.01	0	0.01	0.01	0	0.01
Drainage N	0.06	0	0.06	0.06	0	0.06
Totals	10.28	0.01	10.29	1.56	0.01	1.57

Table 4.4-7 defines potential temporary impacts to Regional Board jurisdiction.

Table 4.4-7
Summary of Potential Temporary Impacts to Regional Board Jurisdiction

Drainage Features	Non-Wetland Waters (acres)	Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Temporary Impacts to Non-Wetland Waters (acres)	Temporary Impacts to Wetlands (acres)	Total Temporary Impacts to Regional Board Jurisdiction (acres)
Smith Creek On-Site	9.25	0	9.25	8.65	0	8.65
Totals	9.25	0	9.25	8.65	0	8.65

Isolated Waters

Isolated waters within the Project area total 0.47 acres, none of which exhibit wetland characteristics. A total of 9,405 linear feet of isolated streambed are present. Potential

permanent impacts to isolated waters total 0.40 acres, none of which exhibits wetland characteristics. Table 4.4-8 summarizes permanent impacts to isolated waters. Also, refer to Impact 4.4-1: *Sensitive Species and Habitats* and Section 4.4-6, *Level of Significance after Mitigation*.

Impact Summary

Implementation of the proposed Project may result in disturbances to drainages under the jurisdiction of the USACE, CDFG, and/or Regional Board. The site supports approximately 0.43 acres of riparian habitat as defined by the MSHCP, which would also fall under the jurisdiction of the CDFG and approximately 0.01 acre of jurisdictional wetland.

- Potential permanent impacts to USACE jurisdiction on site total 1.17 acres, of which 0.01 acres are jurisdictional wetlands. Of that total, potential permanent impacts to USACE jurisdiction off-site total 0.15 acre, none of which consists jurisdictional wetlands.
- Potential temporary impacts to USACE jurisdiction on site total 8.65 acres, none of which consist of jurisdictional wetlands.
- Potential permanent impacts to isolated waters on site total 0.40 acre, none of which consist of wetlands.

Table 4.4-8
Summary of Permanent Impacts to Isolated Waters

Drainage Features	Non-Wetland Isolated Waters (acres)	Isolated Wetlands (acres)	Total Isolated Waters (acres)	Permanent Impacts to Non-Wetland Isolated Waters (acres)	Permanent Impacts to Isolated Wetlands (acres)	Total Permanent Impacts to Isolated Waters (acres)
Feature F	0.13	0	0.13	0.13	0	0.13
Feature G	0.06	0	0.06	0	0	0
Feature H	0.01	0	0.01	0.01	0	0.01
Feature I	0.08	0	0.08	0.08	0	0.08
Tributary Feature I-1	0.02	0	0.02	0.02	0	0.02
Feature J	0.06	0	0.06	0.06	0	0.06
Tributary Feature J-1	0.02	0	0.02	0.01	0	0.01
Feature K	0.08	0	0.08	0.08	0	0.08
Feature M	0.01	0	0.01	0.01	0	0.01
Totals	0.47	0	0.47	0.4	0	0.4

Source: Glen Lukos Associates, Jurisdictional Delineation of the 1,522 Acre Banning Butterfield Residential Development Project and the 21.08-Acre Off-Site Improvement Area, August 9, 2010 (see Appendix C2).

- Potential permanent impacts to Regional Board jurisdiction totals 1.57 acres, of which 0.01 acres are jurisdictional wetlands. Of that total, potential permanent impacts to Regional Board jurisdiction off-site total 0.15 acre, none of which consists jurisdictional wetlands.
- Potential temporary impacts to Regional Board jurisdiction on site total 8.65 acres, none of which consist of jurisdictional wetlands.
- Potential permanent impacts to CDFG jurisdiction on site total 2.47 acres, of which 0.41 acre consists of vegetated riparian habitat. Of that total, potential permanent impacts to CDGF off-site jurisdictional area total 0.23 acre, of which 0.08 acre is vegetated riparian habitat.
- Potential temporary impacts to CDFG jurisdiction total 9.22 acres, of which 0.02 acre consists of vegetated riparian habitat.

With the implementation of mitigation measure BIO-3, which requires compensatory mitigation of project impacts to jurisdictional riparian/riverine and wetland habitat pursuant to the requirements and regulations of the USACE, CDFG and RWQCB. This Mitigation Measure, together with Project compliance with any permit/agreement conditions and mitigation measures imposed by the permitting agencies, would reduce Project impacts to sensitive natural communities to a less than significant level.

Protocol surveys and a habitat assessment have not identified any riparian, chaparral, or wetland habitat on the site that is suitable or provides value for any sensitive species discussed in Section 6.1.2 of the MSHCP. Based on a review of soils and supplemented by site surveys, no vernal pools, vernal pool plant indicator species, and no suitable habitat for fairy shrimp occur on the site. The Project would not have any effect on those sensitive habitats or species and is consistent with the MSHCP as it relates to riparian and riverine habitats.

Mitigation Measures

BIO-3 The applicant shall provide compensatory mitigation for the temporary disturbance to CDFG jurisdictional waters, which includes approximately 0.41 acre of vegetated riparian habitat, and the temporary disturbance to Regional Board and USACE jurisdiction, none of which consists of jurisdictional wetlands:

The mitigation requirements will be determined through applicable regulatory permitting programs of CDFG, RWQCB, and USACE, and shall consist of minimum 1:1 mitigation primarily through onsite restoration within the Smith Creek drainage and other onsite areas, which will be performed concurrently with development of the golf course (PAs 35 and 39) or alternative uses within these PAs (the golf

course/open space PAs include various combinations of parks, trails, native habitat, drainage facilities, water quality improvements, groundwater recharge areas, and wetland mitigation areas).

The applicant shall provide compensatory mitigation for the permanent disturbance to no more than 2.47 acres of CDFG jurisdiction, of which 0.41 acre consists of vegetated riparian habitat and the permanent disturbance to no more than 1.17 acres of USACE jurisdiction, of which 0.01 acre consists of jurisdictional wetlands, which will consist of the creation, enhancement, or restoration of up to 2.47 acres of CDFG jurisdiction, of which 0.41 acre will consist of vegetated riparian habitat, within, or adjacent to, Smith Creek.

With the implementation of mitigation measure BIO-3, which requires formal consultation with the County of Riverside, the USACE, the RWQCB, CDFG and the RCA and compliance with any permit/agreement conditions and mitigations, Project impacts to sensitive natural communities would be reduced to a less than significant level. This riparian/riverine mitigation measure would result in restoration with native plants at a ratio of 1:1 and would provide equivalent or superior habitat as compared to existing conditions on site, and is consistent with Section 6.1.2 of the MSHCP.

Impact 4.4-3: Habitat Conservation Plans

Threshold: *Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

Determination: *Less than Significant with Mitigation Incorporated*

As previously noted, the Project site is located within an MSHCP survey area for burrowing owl. Suitable habitat for burrowing owl was found on site. Accordingly, protocol surveys were conducted in 2007 and 2010 during which two individuals were identified on the site. Impacts resulting from Project development to this species would be considered significant and would require mitigation pursuant to the requirements of the MSHCP. Accordingly, Mitigation Measure BIO-2, which requires pre-construction surveys for this species within 30 days prior to grading activities on the site and passive relocation of any burrowing owls found in the course of those surveys, has been imposed to mitigate potential adverse affects.

Implementation of the Project would result in permanent impacts to 0.41 acre of riparian/riverine habitat and 0.01 acre of wetland. Mitigation Measure BIO-3 would ensure mitigation of these impacts pursuant to the regulations administered by the USACE, CDFG and RWQCB. In addition, Mitigation Measure BIO-4 will require consultation with the RCA and preparation of a DBESP report and implementation of its conditions and mitigation measures.

Construction activities have potential to result in direct and indirect impacts to biological resources. These potential impacts include: (1) increased airborne dust, which can coat vegetation and adversely impact air quality to the detriment of wildlife; (2) diversion of stream flows that can adversely impact wildlife access to water and result in temporary disturbances to habitat; (3) staging and storage of equipment and supplies within sensitive habitat; (4) disruption or accidental destruction of sensitive habitat during clearing, grubbing, grading, and other site disturbing activities; (5) introduction of invasive plant materials; (6) disposition of trash and debris in unmarked sensitive habitat. To avoid these adverse impacts, Mitigation Measure BIO-5 is required.

The proposed Project has been planned to avoid all significant indirect impacts associated with drainage, toxics, lighting, noise, barriers, invasive species and brush management. The following mitigation measures and best management practices will be implemented in compliance with MSHCP Urban/Wildlands Interface policies, thus reducing all indirect impacts to a level that is less than significant.

BIO-4 Prior to the issuance of the grading permits the developer shall complete and submit all required protocol and habitat assessment studies required to demonstrate compliance with the MSHCP. Specifically, a DBESP (Determination of Biologically Equivalent or Superior Preservation), following approval of all required permits from the CDFG and USACE, shall be prepared, which shall be reviewed by the CDFG and USFWS, and approved by City staff, in compliance with Section 6.1.2 of the MSHCP. The applicant shall implement the approved DBESP as a condition of the issuance of a grading permit and comply with all biological mitigation measures contained within the DBESP.

BIO-5 The following mitigations shall be incorporated into the construction plans and specifications to minimize any potentially adverse construction impacts:

- Construction areas will be watered regularly to control dust and minimize impacts to adjacent vegetation and wildlife habitat.
- Short-term stream diversions will be accomplished by use of gravel bags or other methods that will result in minimal in-stream impacts. Short-term diversions will be evaluated through the riparian/riverine component of the MSHCP Consistency analysis (Section 6.1.2) (refer to Mitigation Measure BIO-4), which will require a DBESP analysis to be prepared. In addition, the 401, 404, and 1602 permitting processes will evaluate short-term impacts relative to stream diversions. All biological mitigation measures contained within the 401, 404 and 1602 approval conditions and DBESP shall be implemented pursuant to BIO-3 and BIO-4, respectively, which typically require 1:1 onsite restoration. Any mitigation beyond the 1:1 restoration of

the original stream will be mitigated onsite through negotiations with CDFG, RWQCB, and USACE.

- Equipment storage, fueling and staging areas will be sited on non-sensitive upland habitat types with minimal risk of direct discharge into riparian areas or other sensitive habitat types.
- The limits of jurisdictional disturbance, including the upstream, downstream along Smith Creek and lateral extents that are tributaries to Smith Creek, will be clearly defined and marked in the field. Monitoring personnel will review the limits of disturbance prior to initiation of construction activities.
- During construction, the placement of equipment within the stream or on adjacent banks or adjacent upland habitats occupied by Covered Species that are outside of the Project footprint will be avoided.
- Exotic, weedy plant species removed during construction will be properly handled to prevent sprouting or regrowth.
- Waste, dirt, rubble, or trash shall not be deposited in a conservation area or on native habitat.

With implementation of mitigation measures BIO-1 through BIO-5, Project impacts related to Habitat Conservation Plans would be reduced to a less than significant level. These mitigation measures for impacts to sensitive species, riparian/riverine habitats, and urban/wildlands interface are consistent with the MSHCP.

4.4.5 CUMULATIVE IMPACTS

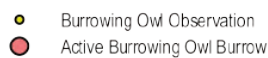
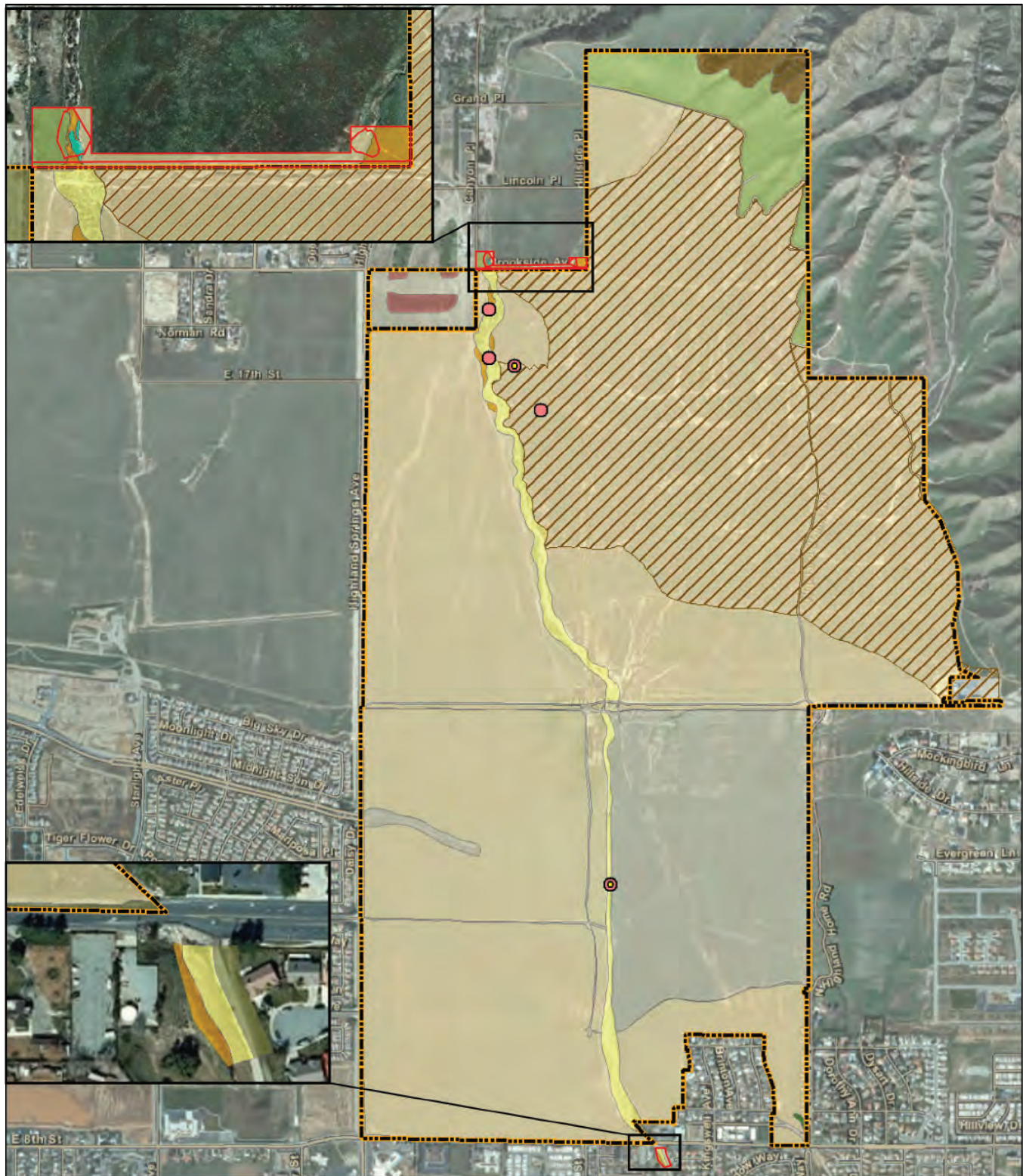
Determination: Less than Significant with Mitigation Incorporated

The proposed project will result in the permanent removal of approximately 1,500 acres of existing vegetation. Development will contribute to the overall reduction of open grassland available in the region, which habitat is used, or can be used, as live-in and/or foraging areas for several sensitive species including burrowing owl. However, this habitat is not consider "sensitive" and is widely available throughout the region. The Project will also result in the removal of a small amount of riparian/riverine and wetland habitat. Compensatory mitigation for project specific impacts to riparian/riverine and wetland habitat will be required by agencies with jurisdiction over these resources and implemented in the course of project development. Compliance with existing regulations, permit conditions, and mitigation measures BIO-1 through BIO-5 will reduce Project impacts to biological resources to a less than significant level.

Accordingly, the project will not make a cumulatively considerable contribution to any potentially significant cumulative impact on biological resources in the Banning area.

4.4.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The impact of the proposed Project on Biological Resources would be less than significant with the incorporation of mitigation measures BIO-1 through BIO-5 and compliance with all existing laws and regulations.



Source: Natural Resources Consultants Biological Resources Assessment, Sept 9, 2010
(Refer to Appendix C-1, Exhibit 9)



NOT TO SCALE

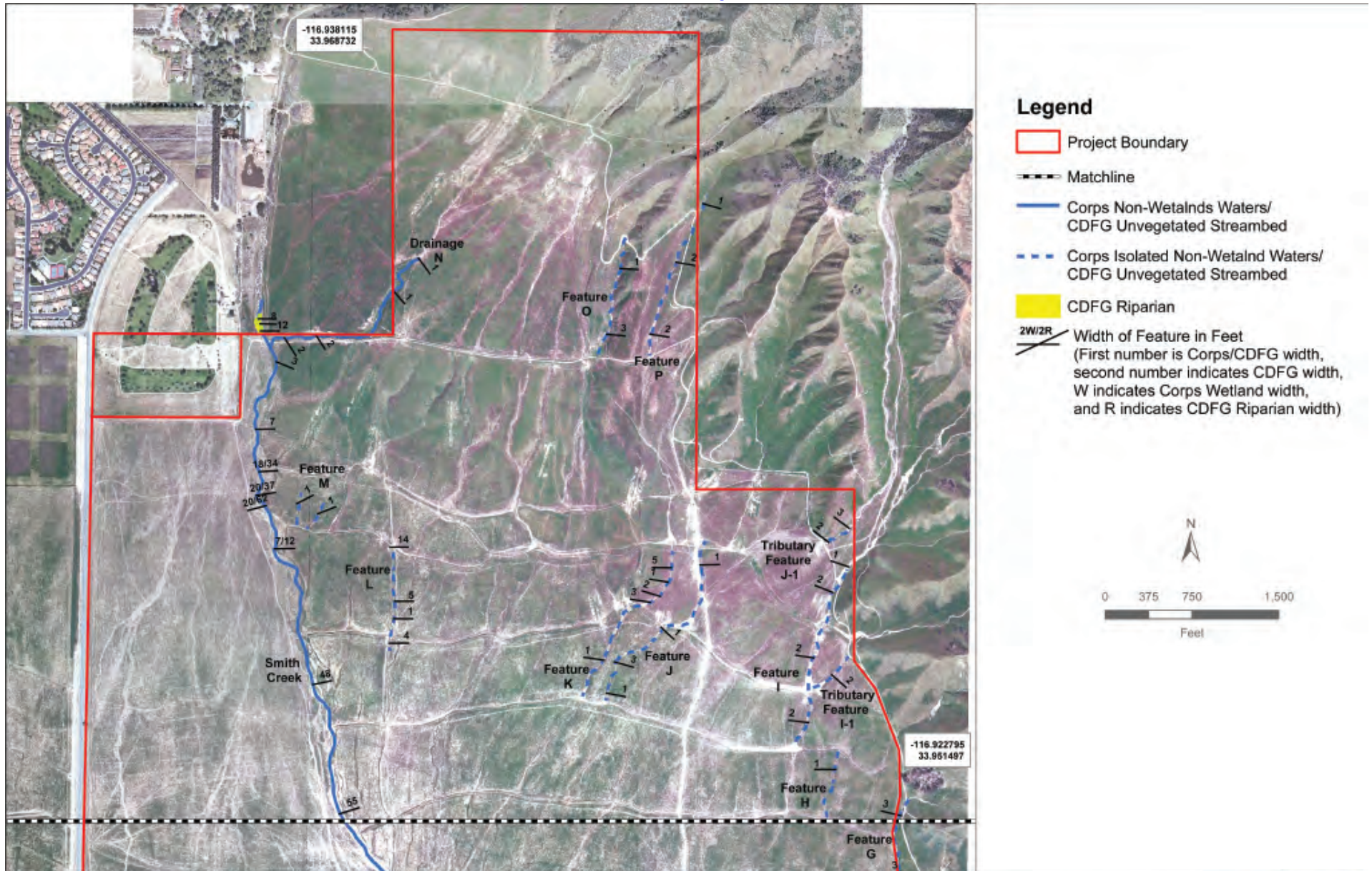
5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

Biological Resources Map

AR 003807
EXHIBIT 4.4-1

AR000411



SOURCE: Glenn Lukos Associates, Jurisdictional Delineation August 31, 2010
(Refer to Appendix C-2, Exhibit 3)



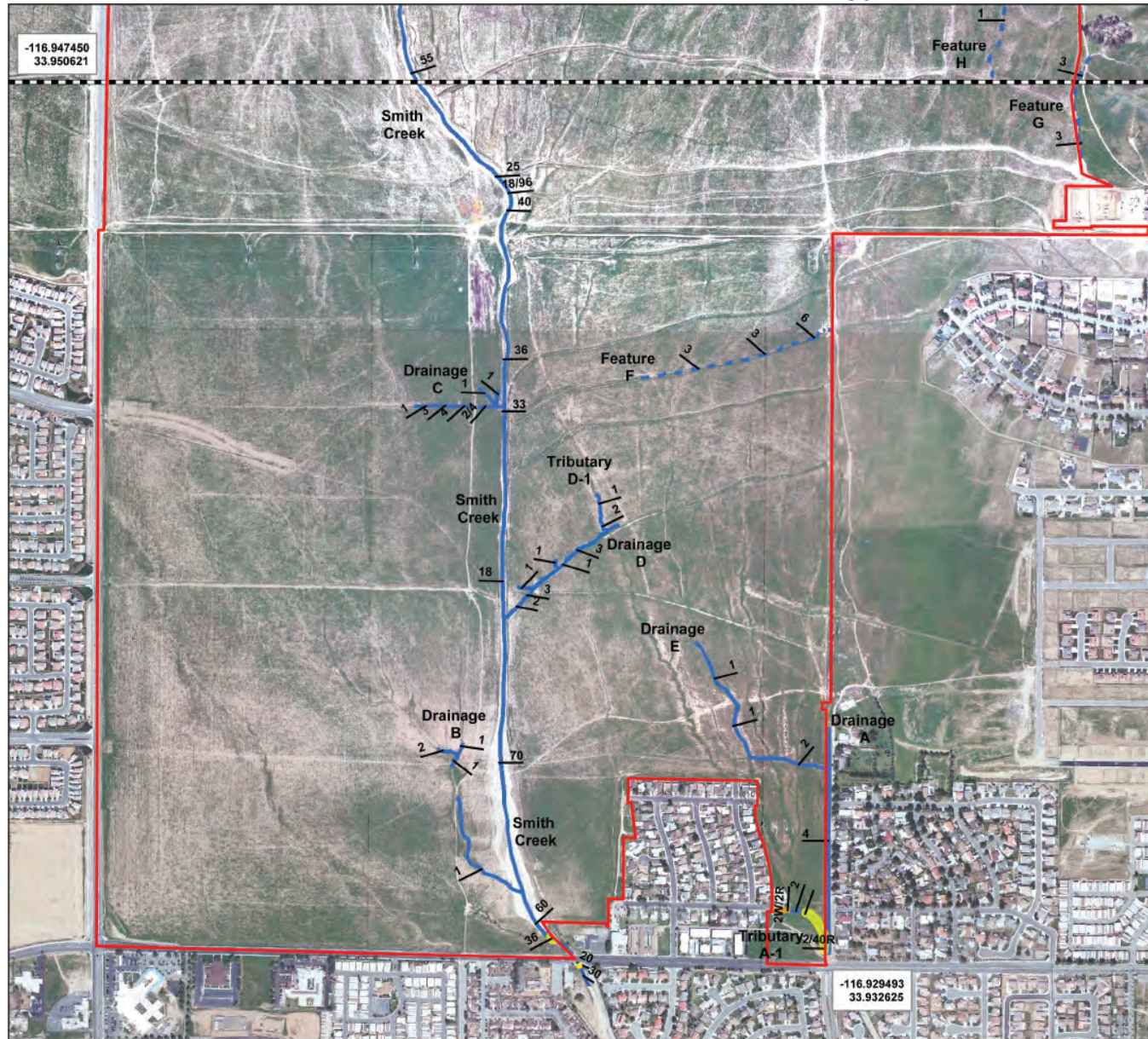
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5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR
Jurisdictional Delineation Map North
AR 003808

EXHIBIT 4.4-2

AR000412



Legend

- Project Boundary
- Matchline
- Corps Non-Wetlands Waters/
CDFG Unvegetated Streambed
- Corps Isolated Non-Wetland Waters/
CDFG Unvegetated Streambed
- Corps Wetlands/CDFG Riparian
- CDFG Riparian
- 2W/2R Width of Feature in Feet
(First number is Corps/CDFG width,
second number indicates CDFG width,
W indicates Corps Wetland width,
and R indicates CDFG Riparian width)



SOURCE: Glenn Lukos Associates, Jurisdictional Delineation August 31, 2010
(Refer to Appendix C-2, Exhibit 3)



NOT TO SCALE

5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR
Jurisdictional Delineation Map South
AR 003809

EXHIBIT 4.4-3

AR000413

SECTION 4.5

CLIMATE CHANGE

4.5.1 INTRODUCTION

This section evaluates the potential global climate change impacts associated with the *Butterfield Specific Plan*. The proposed Project's potential direct and cumulative contribution to greenhouse gas emissions and global climate change are analyzed. Additionally, it also recommends mitigation measures to avoid or lessen the significance of potential impacts. Information presented in this Section is based upon the *City of Banning General Plan* (January 2006), the *Environmental Impact Report for the City of Banning Comprehensive General Plan and Zoning Ordinance* (June 2005), the *City of Banning Municipal Code* (codified through January 2010), and Air Quality Data provided by the California Air Resources Board (CARB). Land use and traffic data are based on the proposed *Butterfield Specific Plan*, and the Project's *Traffic Impact Analysis* (Appendix I). Refer to Section 4.3, *Air Quality*, for detailed construction-related and operational emissions, as well as additional background information on air quality. Refer to Appendix B, *Air Quality Data* for detailed air quality modeling assumptions and results. Climate change modeling and mitigation guidance is taken from numerous sources noted in the text, including the CARB *Scoping Plan* (October 2008), the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change White Paper* (January 2008), CAPCOA, *Quantifying Greenhouse Gas Mitigation Measures* (September 2010), and the California Attorney General recommended mitigation measures.

4.5.2 EXISTING CONDITIONS

4.5.2.1 ENVIRONMENTAL SETTING

Greenhouse Gases - Overview

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."¹ The greenhouse effect traps heat in the troposphere through a three fold process summarized as follows: Short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and greenhouse gases (GHGs) in the upper atmosphere absorb this long wave radiation and emit this long wave radiation into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor and carbon dioxide. Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful.

¹ The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential for each GHG based on its ability to absorb and re-radiate long wave radiation. The Global Warming Potential of a gas is determined using carbon dioxide as the reference gas with a Global Warming Potential of 1.⁵

Greenhouse gases generated in the South Coast Air Basin (SCAB) and their relative contribution to the overall warming effect are CO₂ (55 percent), CFCs (24 percent), CH₄ (15 percent), and nitrous oxide (6 percent).² It is widely accepted that continued increases in GHGs will contribute to global climate change although there is uncertainty concerning the magnitude and timing of future emissions and the resultant warming trend. Human activities associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors contribute to these GHGs. According to the California Energy Commission (CEC), in December 2006, transportation was responsible for 41 percent of the state's GHG emissions, followed by electricity generation in 2004.³ More recently, in November 2007, CARB reported that transportation was 38 percent of the state's GHG emissions, followed by electricity generation in 2004.⁴ Emissions of CO₂ and N₂O are byproducts of fossil fuel combustion. CH₄, a highly potent GHG, results from off-gassing associated with agricultural practices, landfills, and wastewater treatment.

Greenhouse Gas Descriptions

GHGs include, but are not limited to, the following:⁵

- Water Vapor (H₂O). Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively. The primary human related source of water vapor comes from fuel combustion in motor vehicles; however, this is not believed to contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change (IPCC) has not determined a Global Warming Potential for water vapor.

² South Coast Air Quality Management District, *Guidance Document of addressing for Addressing Air Quality Issues in General Plans and Local Planning*, May 6, 2005.

³ California Energy Commission, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, Staff Final Report*, Publication CEC-600-2006-013-D, December 2006.

⁴ California Air Resources Board, *Staff Report - California 1990 Greenhouse Gas Emissions Level and 2020 Emission Limit*, November 16, 2007.

⁵ All Global Warming Potentials are given as 100 year Global Warming Potential. Unless noted otherwise, all Global Warming Potentials were obtained from the Intergovernmental Panel on Climate Change. Climate Change (Intergovernmental Panel on Climate Change, *Climate Change, The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the IPCC*, 1996).

- Carbon Dioxide (CO₂). Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of CO in the atmosphere has increased 35 percent.⁶ Carbon dioxide is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
- Methane (CH₄). CH₄ is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation. CH₄ is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The Global Warming Potential of CH₄ is 21.
- Nitrous Oxide (N₂O). N₂O is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The Global Warming Potential of N₂O is 310.
- Hydrofluorocarbons (HFCs). HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is growing, as the continued phase out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The Global Warming Potential of HFCs range from 140 for HFC-152a to 6,300 for HFC-236fa.
- Perfluorocarbons (PFCs). PFCs are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semi conductor manufacturing. PFCs are potent GHGs with a Global Warming Potential several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years).⁷ The Global Warming Potential of PFCs range from 6,500 to 9,200.
- Sulfur hexafluoride (SF₆). SF₆ is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF₆ is the most potent GHG that has been evaluated by the Intergovernmental Panel on Climate Change with a Global Warming Potential of 23,900. However, its global warming contribution is not as high as the Global Warming

⁶ United States Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990 to 2004*, April 2006, <http://www.epa.gov/climatechange/emissions/usinventoryreport.html>.

⁷ United States Environmental Protection Agency, *High GWP Gases and Climate Change*, October 19, 2006, <http://www.epa.gov/highgwp/scientific.html#pfc>.

Potential would indicate due to its low mixing ratio compared to carbon dioxide (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm]).⁸

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric O₃ depleters; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

- Hydrochlorofluorocarbons (HCFCs). HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The GWPs of HFCs range from 140 (HFC-152a) to 11,700 (HFC-23).⁹
- 1,1,1 trichloroethane. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The Global Warming Potential of methyl chloroform is 110 times that of CO₂.¹⁰
- Chlorofluorocarbons (CFCs). CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the U.S. Environmental Protection Agency (EPA) Final Rule (57 FR 3374) for the phase out of O₃ depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with Global Warming Potentials ranging from 4,600 for CFC 11 to 14,000 for CFC 13.¹¹

Global Setting

The gases believed to be most responsible for global warming are H₂O, CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. Enhancement of the greenhouse effect can occur when concentrations of these gases exceed the natural concentrations in the atmosphere. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ primarily results from off-gassing associated

⁸ United States Environmental Protection Agency, *High GWP Gases and Climate Change*, June 22, 2010, <http://www.epa.gov/highgwp/scientific.html#sf6>, accessed on May 16, 2011.

⁹ United States Environmental Protection Agency, *High GWP Gases and Climate Change*, June 22, 2010, <http://www.epa.gov/highgwp/scientific.html#hfc>, accessed on May 16, 2011.

¹⁰ United States Environmental Protection Agency, *Protection of Stratospheric Ozone: Listing of Global Warming Potential for Ozone Depleting Substances*, November 7, 2006, <http://www.epa.gov/EPA-AIR/1996/January/Day-19/pr-372.html>, accessed on May 16, 2011.

¹¹ United States Environmental Protection Agency, *Class I Ozone Depleting Substances*, March 7, 2006, <http://www.epa.gov/ozone/ods.html>, accessed on May 16, 2011.

with agricultural practices and landfills. SF₆ is a GHG commonly used in the utility industry as an insulating gas in transformers and other electronic equipment. SF₆, while comprising a small fraction of the total GHGs emitted annually worldwide¹², is a much more potent GHG with 22,800 times the GWP as CO₂.¹³ There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming. The EPA reports that the most-recent data (2006) on global emissions of CO₂ is between 25 and 30 billion metric tons per year.¹⁴

Intergovernmental Panel on Climate Change

The IPCC was established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Program (UNEP) to assess “the scientific, technical and socioeconomic information relevant for the understanding of the risk of human-induced climate change.” The IPCC issued Assessment Reports in 1990, 1995, 2001 and the latest in 2007 linking climate change to human activities. The 1st Assessment Report, released in 1990, played an important role in the discussions of the Intergovernmental Negotiating Committee for the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC was adopted in 1992 and in effect in 1994, and provides the overall policy framework and legal basis for addressing the climate change issue. The 2nd Assessment Report was released in 1995. The most cited finding from that plenary, on attribution of climate change, has been consistently reaffirmed by subsequent research: “The balance of evidence suggests a discernible human influence on global climate.” The 2nd Assessment report provided key input to the negotiations that led to the adoption in 1997 of the Kyoto Protocol to the UNFCCC. The 3rd Assessment Report, was approved in January 2001. The predominant summary statements from the 3rd Assessment Report strengthened the 2nd Assessment Report’s attribution statement: “An increasing body of observations gives a collective picture of a warming world and other changes in the climate system” and “There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities.”¹⁵

The IPCC completed its 4th Assessment Report in 2007. The IPCC’s 4th Assessment Report Working Group I concluded with more certainty than in its previous reports that “warming of

¹² World CO₂eq = 29,319 million metric tons; US CO₂eq = 5,833 million metric tons. The project’s incremental contribution to global emissions is approximately 0.00042 percent, and approximately 0.0021 percent contribution to US emissions. Source: United Nations Statistics Division, Millennium Development Goals indicators: Carbon dioxide emissions (CO₂), thousand metric tons of CO₂, <http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=749&crd=>, Accessed May 23, 2011. Note: Emissions are human-produced, direct emissions of carbon dioxide only. Excludes other greenhouse gases; land-use, land-use-change and forestry (LULUCF); and natural background flows of CO₂.

¹³ GWP is the potential of a gas or aerosol to trap heat in the atmosphere. CO₂ is assigned a GWP of 1.

¹⁴ United States Environmental Protection Agency, *Global Greenhouse Gas Data*, April 14, 2011, <http://www.epa.gov/climatechange/emissions/globalghg.html>, accessed on May 25, 2011.

¹⁵ Intergovernmental Panel on Climate Change, *Climate Change 2007, Synthesis Report*, 2007.

the climate system is unequivocal.”¹⁶ The group’s conclusions are based on a variety of evidence including historical, global average air and ocean temperatures, widespread observations of melting snow and ice, and rising global average sea level. Global concentrations of three key GHGs—CO₂, CH₄ and N₂O—have increased “markedly” and “as a result of human activities” since the Industrial Revolution of the 18th century. Ice core data on historical levels of GHGs was used by IPCC scientists to conclude that modern concentrations of these three GHGs “now far exceed pre-industrial values.” The report also states that fossil fuel use and changes in land use are the primary contributors to increased CO₂ concentrations globally, and agriculture is the primary source of increased CH₄ and N₂O.

Previously, the IPCC’s 3rd Assessment Report stated that the average global temperature is likely to increase by between 3.6 and 8.1°F by 2100; it also found larger temperature increases to be possible, but unlikely.¹⁷ Temperature increases are expected to vary widely in specific locations, depending on many factors. The increase in temperature is expected to lead to higher temperature extremes, precipitation extremes leading to increased flooding and droughts, ocean acidification from increased carbon content, and rising sea levels.

Regional Setting

Climate models indicate that temperatures in California are expected to increase by 4.7°F to 10.5°F by the end of the century if GHG emissions continue to proceed at a medium or high rate.¹⁸ Lower emission rates would reduce the projected warming to 3.0°F to 5.6°F. Almost all climate scenarios include a continuing trend of warming through the end of the century given the vast amounts of GHGs already released, and the difficulties associated with reducing emissions to a level that would stabilize the climate. Total GHG emissions in California have been approximated by the CEC, which found that 492 million metric tons (MMT) of CO₂ equivalent (CO₂eq)¹⁹ GHG emissions were produced in California in 2004.²⁰ The CEC study also found transportation to be the source of 41 percent of the state’s GHG emissions; followed by electricity generation at 22 percent and industrial sources at 21 percent.

¹⁶ Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, from <http://www.ipcc.ch/ipccreports/ar4-wg1.htm>, accessed October 28, 2008.

¹⁷ International Panel on Climate Change, *Climate Change 2001- The Scientific Basis*, 2001.

¹⁸ California Energy Commission, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, Staff Final Report*, Publication CEC-600-2006-013-D, December 2006.

¹⁹ Carbon dioxide-equivalents (CO₂eq) provide a universal standard of measurement against which the impacts of different greenhouse gases can be evaluated. Every greenhouse gas has a Global Warming Potential (GWP), a measurement of the impact that particular gas has on 'radiative forcing'; that is, the additional heat/energy which is retained in the Earth's ecosystem through the addition of this gas to the atmosphere.

²⁰ *Ibid.*

According to the 2006 California Climate Action Team Report (2006 CAT Report), the following climate change effects are predicted in California over the course of the next century:²¹

- A diminishing Sierra snowpack declining by 70 to 90 percent, threatening the state's water supply.
- Increasing temperatures from 8 to 10.4 °F under the higher emission scenarios, leading to a 25 to 35-percent increase in the number of days that ozone pollution levels are exceeded in most urban areas.
- Coastal erosion along the length of California and seawater intrusion into the Delta from a four- to 33-inch rise in sea level. This would exacerbate flooding in already vulnerable regions.
- Increased vulnerability of forests due to pest infestation and increased temperatures. Increased challenges for the state's important agriculture industry from limited water shortage, increasing temperatures, and saltwater intrusion into the Delta.
- Increased electricity demand, particularly in the hot summer months. Therefore, temperature increases could lead to environmental impacts in a wide variety of areas, including: reduced snowpack resulting in changes to the existing water resources, increased risk of wildfires, changing weather expectations for farmers and ranchers, and public health hazards associated with higher peak temperatures, heat waves, and decreased air quality.

These climatological and environmental impacts have been identified in the 2nd and 3rd Assessment Reports prepared by the IPCC in 1995 and 2001. In an effort to provide more information, in December, 2009, a team of California state agencies released a report: "The 2009 Climate Adaptation Strategy." It states that 2.5 trillion dollars' worth of infrastructure in California is at risk from the various projected climate-related changes in our environment. The estimated cost of addressing the impacts on that infrastructure is about \$3.9 billion, annually. The report identifies a number of steps to be taken in the near term to appropriately plan for and address this threat. Highlights of the actions include: the formation of a Climate Adaptation Advisory Panel; new approaches to water management; revised land-use planning to avoid construction in highly vulnerable areas; evaluation of all state infrastructure projects to avoid exacerbating threats to infrastructure; and, more specific planning by emergency response agencies, public health agencies, and others to fortify existing communities and resources, and prepare for future stressors.²²

²¹ California Climate Action Team, *Report to Governor Schwarzenegger and the California Legislature*, http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF, 2006, accessed July 1, 2009.

²² California Energy Commission, <http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>, accessed on May 16, 2011.

Regional Water Resources

Depending on the climate model, precipitation is predicted to increase or decrease slightly. However, the form in which precipitation occurs could change substantially. Warmer winters would lead to less snow and more rain. As a result, the Sierra snowpack would be reduced and would melt earlier. This change could lead to increased flood risks as more water flows into reservoirs and rivers during the winter rainy period. Furthermore, late spring and summer flows to reservoirs would be reduced due to reduced snow packs, thereby reducing the chance of unrestricted water supplies for cities, agriculture, and rivers. Increased temperatures would also lead to a rise in the sea level, from both thermal expansion and melting land-based glaciers. The State Department of Water Resources (DWR) notes that “adapting to the current and future effects of climate change is essential for DWR and California's water managers. DWR addresses climate change in its California Water Plan, which is updated every five years. The California Water Plan provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. DWR continues to improve and expand the analysis of climate change in the California Water Plan. The 2009 California Water Plan Update includes multiple scenarios of future climate conditions and stresses the inclusion of uncertainty, risk, and sustainability.”²³

During the past century, sea levels along the California coast have risen by approximately seven inches. Climate forecasts indicate the sea level would rise by seven to 23 inches over the next 100 years depending on the climate model.²⁴ Substantial melting of either the Greenland or Antarctic ice sheets would lead to an even greater increase in sea levels; however, the IPCC models do not indicate that this would occur within the next 100 years, which is the boundary of most climate models. Longer forecast periods are inherently less reliable as they require more assumptions, and tend to compound the effects of assumptions that may be incorrect. Increases in sea level could lead to increased coastal flooding, salt water intrusion into aquifers, and disrupt wetlands and estuaries. Water supply issues are addressed in Section 4.14, *Water Supply*.

Regional Wildfires

Increased temperatures would lead to increases in evapotranspiration. The summers would likely be drier, and vegetation would also be more likely to dry out, resulting in increasingly larger areas of flammable forests and wild lands. In addition, warmer temperatures could lead to the expansion of pests that kill and weaken trees, leading to increases in the amount of highly

²³ California Department of Water Resources, <http://www.water.ca.gov/climatechange/>, accessed on September 21, 2010.

²⁴ Meehl, G.A.; T.F. Stocker; W.D. Collins; P. Friedlingstein; A.T. Gaye; J.M. Gregory; A. Kitoh; R. Knutti; J.M. Murphy; A. Noda; S.C.B. Raper; I.G. Watterson; A.J. Weaver; and Z.-C. Zhao, *Global Climate Projections, Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, 2007.

flammable dead trees, also increasing the risk of large forest fires. Local wildfire hazards are addressed in Section 4.8, *Hazards and Hazardous Materials*.

Regional Weather Extremes

The temperature increases presented in climate change models are yearly averages. Within those averages is the potential for substantially hotter summers and/or colder winters. As a result of global climate change, the weather is expected to become more variable, with larger extremes. In California, the increase in temperatures is expected to lead to more days with temperatures in excess of 95 degrees. An increase in the number of days with extreme heat has implications for public health as Californians would face greater risk of death or disability from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat. In addition, increased temperatures have implications for agricultural crops, particularly long-term crops such as grapes and fruit trees that are planted in particular locations to take advantage of micro-climates.

Regional Air Quality

As indicated in the discussion of weather extremes, increased temperatures can increase air quality problems. Increased temperatures create the conditions in which ozone formation can increase. In addition, hotter temperatures would likely result in increased electricity use to power air conditioners and refrigerators. Increased power usage has the potential to result in increased air pollutant emissions as more electrical generation is needed to meet the demand. Climate change has been factored into local and regional air quality planning, as noted by CARB, through implementation of AB 32 and related programs.²⁵

4.5.2 REGULATORY FRAMEWORK

Thus far, the approach to addressing the emission of GHGs has been through environmental regulations enforced through air quality laws.

Federal

The federal Clean Air Act (CAA) requires the EPA to define national ambient air quality standards (national standards) to protect public health and welfare in the U.S. The CAA does not specifically regulate GHG emissions; however, on April 2, 2007 the U.S. Supreme Court in *Massachusetts v. U.S. Environmental Protection Agency*, determined that GHGs are pollutants that can be regulated under the CAA. The EPA adopted an endangerment finding and cause or contribute finding for GHGs on December 7, 2009. The final findings were published in the

²⁵ California Air Resources Board, <http://www.arb.ca.gov/cc/cc.htm>, accessed on September 21, 2010.

Federal Register (www.regulations.gov) on December 15, 2009 under Docket ID No. EPA-HQ-OAR-2009-0171. The final rule was effective January 14, 2010.

Under the endangerment finding, the Administrator found that the current and projected atmospheric concentrations of the six, key, well-mixed GHGs (i.e., CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) threaten the public health and welfare of current and future generations. Under the cause of contribute finding, the Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare. Based on these findings, on April 1, 2010, EPA finalized the light-duty vehicle rule controlling GHG emissions. This rule confirmed that January 2, 2011, is the earliest date that a 2012 model year vehicle meeting these rule requirements may be sold in the United States.

On May 13, 2010, EPA issued the final GHG Tailoring Rule. This rule set thresholds for GHG emissions that define when permits under the Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities. Currently, EPA rules do not cover residential construction projects. Implementation of the federal rules is expected to reduce the level of emissions from new motor vehicles and large stationary sources.

The EPA annually publishes the *Inventory of U.S. Greenhouse Gas Emissions and Sinks* for estimating sources of GHGs that is generally consistent with the IPCC methodology developed in its *Guidelines for National Greenhouse Gas Inventories*.

State

Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is occurring, and that there is a real potential for severe adverse environmental, social, and economic effects in the long term. Every nation emits GHGs and therefore makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

There are currently no state regulations in California that establish ambient air quality standards for GHGs. However, California has passed laws directing CARB to develop actions to reduce GHG emissions, and several state legislative actions related to climate change and GHG emissions have come into play in the past decade.

Assembly Bill 1493 (Pavley)

In 2002, then-Governor Gray Davis signed AB 1493 (Chapter 200, Statutes of 2002, amending Section 42823 of the California Health and Safety Code and adding Section 43018.5 to the code). AB 1493 required CARB to develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State.”

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California’s existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR Section 1900, 1961), and adoption of Section 1961.1 (13 CCR Section 1961.1), require automobile manufacturers, beginning with the 2009 model year, to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily for the transportation of persons). The regulations would reduce GHG emissions from California passenger vehicles by about 22 percent by 2012 and about 30 percent by 2016.²⁶

Executive Order S-3-05

Then-Governor Schwarzenegger established Executive Order S-3-05 in 2005, in recognition of California’s vulnerability to the effects of climate change. Executive Order S-3-05 set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The executive order directed the secretary of the Cal/EPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California’s resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through state incentive and regulatory programs.

²⁶ California Air Resources Board, *Fact Sheet, Climate Change Emission Control Regulations*, http://www.arb.ca.gov/cc/ccms/factsheets/cc_newfs.pdf, 2009, accessed on July 1, 2009.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 sets a statewide GHG emissions limit based at 1990 levels by 2020. To achieve the statewide emissions limit, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. Using this criteria to reduce statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions. Under AB 32, CARB must adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 emission cap by 2020. By January 1, 2012, GHG rules and market mechanisms adopted by CARB take effect and become legally enforceable.

Senate Bill 1368

SB 1368 (Chapter 598, Statutes of 2006) is the companion bill of AB 32 and was signed in September 2006. SB 1368 required the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007. SB 1368 also required CEC to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas-fired plant. Furthermore, the legislation states that all electricity provided to California, including imported electricity, must be generated by plants that meet the standards set by CPUC and CEC.

Executive Order S-1-07

Executive Order S-1-07, which was signed in 2007, proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in

California by at least ten percent by 2020. This order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the LCFS. The LCFS will reduce GHG emissions from the transportation sector in California by about 16 MMT in 2020. The LCFS is designed to reduce California's dependence on petroleum, create a lasting market for clean transportation technology, and stimulate the production and use of alternative, low-carbon fuels in California. The LCFS is designed to provide a durable framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. One standard is established for gasoline and the alternative fuels that can replace it. A second similar standard is set for diesel fuel and its replacements.

The standards are "back-loaded"; that is, there are more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the LCFS will be based on a combination of strategies involving lower carbon fuels and more efficient, advanced-technology vehicles.

Reformulated gasoline mixed with corn-derived ethanol at 10 percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity are also low carbon fuels and result in significant reductions of GHGs when used in fuel cell or electric vehicles due to significant vehicle power train efficiency improvements over conventionally-fueled vehicles. As such, these fuels are included in the LCFS as low carbon options. Other fuels may be used to meet the standards and are subject to meeting existing requirements for transportation fuels.

Senate Bill 97

SB 97, signed August 2007 (Chapter 185, Statutes of 2007; PRC Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the Governor's OPR, which is part of the state Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions (or the effects of GHG emissions), as required by CEQA, by July 1, 2009. The Resources Agency is required to certify and adopt those guidelines by January 1, 2010. SB 97 also removes, both retroactively and prospectively, the legitimacy of litigation alleging inadequate CEQA analysis of effects of GHG emissions in the environmental review of projects funded by the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of

2006 or the Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1B or 1E). This provision will be repealed by operation of law on January 1, 2010; at that time, any such projects that remain unapproved will no longer be protected against litigation claims of failure to adequately address climate change issues. In the future, this bill will only protect a handful of public agencies from CEQA challenges on certain types of projects, and only for a few years time.

As set forth more fully below, in June 2008, OPR published a technical advisory recommending that CEQA lead agencies make a good-faith effort to estimate the quantity of GHG emissions that would be generated by a proposed project. Specifically, based on available information, CEQA lead agencies should estimate the emissions associated with project-related vehicular traffic, energy consumption, water usage, and construction activities to determine whether project-level or cumulative impacts could occur, and should mitigate the impacts where feasible.²⁷ OPR requested CARB technical staff to recommend a method for setting CEQA thresholds of significance as described in Section 15064.7 of the CEQA Guidelines that will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state.

On December 30, 2009, the Resources Agency adopted the CEQA Guidelines Amendments prepared by OPR, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the CEQA Guidelines Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The CEQA Guidelines Amendments became effective on March 18, 2010.

Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. Executive Order S-14-08 was signed in November 2008 and expands the state's Renewable Energy Standard to 33 percent renewable power by 2020.²⁸ Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the state come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers, including the City of Banning's electricity system. On April 12, 2011, Governor Jerry Brown reinforced the requirements of Executive Order S-21-09, and signed Senate Bill 2, which requires California to get 33 percent of its electricity from renewable sources by the year 2020.

²⁷ Governor's Office of Planning and Research (OPR), *CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, October 23, 2008, <http://opr.ca.gov/index.php?a=ceqa/index.html>, accessed on July 1, 2009.

²⁸ Office of the Governor, *Press Release: Governor Schwarzenegger Advances State's Renewable Energy Development*, November 17, 2008, <http://gov.ca.gov/press-release/11073/>, accessed on July 1, 2009.

Senate Bill 375

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

On August 9, 2010 CARB proposed regional GHG Emission reduction targets pursuant to SB 375. CARB developed proposed regional targets through an extensive public process over the past 18 months, with significant contributions from the affected MPOs. Substantial data and analysis, developed by the regions, served as the basis for predicting the amount of change that can reasonably be expected in coming decades and demonstrated significant regional differences which are reflected in the targets.

CARB staff is proposing per capita greenhouse gas reductions of 7 to 8 percent by 2020, and between 13 and 16 percent in 2035 for each of California's largest urban areas through regional land use and transportation strategies. These benefits are magnified when California's vehicle and fuels programs to reduce greenhouse gases are taken into account.

Banning is located within the Southern California Association of Governments (SCAG) region which is one of the largest MPO's in the state, and is also part of the Western Riverside Council of Governments (WRCOG). CARB proposed targets for SCAG of 8 percent by 2020 and 13 percent by 2035. In response to CARB proposed targets, the Regional Council of the SCAG voted on September 2, 2010 to recommend to the CARB its own targets for GHG reductions. The Regional Council recommended reduction targets of 6 percent for 2020 and 8 percent for 2035. It should be noted that WRCOG also has authority to develop its own SCS and APS, but it has not announced plans to do so. For the SCAG region, the next Regional Transportation Plan (RTP) is scheduled to be completed in 2012 and the Housing Element Update is scheduled for 2014. Therefore, completion of an SCS or APS would not be expected to occur for at least 3 years.

This law also extends the minimum time period for the regional housing needs allocation cycle from 5 to 8 years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

CARB Early Action Measures

In June 2007, CARB directed staff to pursue 37 early actions for reducing GHG emissions under AB 32. The broad spectrum of strategies to be developed – including a LCFS, regulations for refrigerants with high GWP, guidance and protocols for local governments to facilitate GHG reductions, and green ports – reflects the government’s responsive actions to immediately address GHGs.²⁹

In addition to approving the 37 GHG reduction strategies, CARB directed staff to further evaluate early action recommendations made at the June 2007 meeting, and to report back to CARB within 6 months. CARB’s approach suggested a desire to try to pursue greater GHG emissions reductions in California in the near-term. Since the June 2007 CARB hearing, CARB staff has evaluated all 48 recommendations submitted by several stakeholders and several internally-generated staff ideas, and has published the *Draft List of Early Action Measures To Reduce Greenhouse Gas Emissions In California Recommended For Board Consideration*.³⁰

The Board has identified 9 Discrete Early Action measures to date, including potential regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations, and other sources in 2007. The Board has already approved 2 Discrete Early Action measures (ship electrification at ports and reduction of high GWP gases in consumer products). Regulatory development for the remaining measures is underway.³¹

California Climate Action Team

In response to Executive Order S-3-05, the Secretary of Cal/EPA created the CAT, which consists of 14 agencies and divided into 11 subgroups, 9 of which address specific economic sectors, and 2 that address implementing a multi-sector approach to addressing climate change. The subgroups consist of representatives from appropriate state agencies and departments.

In March 2006, the CAT published the 2006 CAT Report for then-Governor Schwarzenegger and the Legislature.³² The 2006 CAT Report identifies strategies that the state could pursue to reduce the potential for climate change from GHG emissions. These are strategies that could be implemented by various state agencies to ensure that the Governor’s targets are met and can be met with existing authority of state agencies. The 2006 CAT Report provides GHG emission reduction strategies, which include the following:

²⁹ California Air Resources Board, *Draft List of Early Action Measures To Reduce Greenhouse Gas Emissions In California Recommended For Board Consideration*, September 2007.

³⁰ *Ibid.*

³¹ California Air Resources Board, *Climate Change Draft Scoping Plan: A Framework for Change*, June 2008.

³² California Climate Action Team, *Report to Governor Schwarzenegger and the California Legislature*, http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF, accessed on July 1, 2009.

Climate Change Standards. AB 1493 (Pavley) requires the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by CARB in September 2004.

Green Buildings Initiative. Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by 2015, as compared with 2003 levels. The Executive Order and related action plan spell out specific actions state agencies are to take with state-owned and state-leased buildings. The order and plan also provide various strategies and incentives to encourage private building owners and operators to achieve the 20-percent target. The State has adopted the 2010 CALGREEN building standards, which became effective January 1, 2011. These standards address such measures as new energy efficiency regulations through the California Energy Commission, water conservation (reduce indoor use by at least 20 percent), irrigation controllers, waste reduction, VOC limits on construction materials, and HVAC system design.³³

Diesel Anti-Idling. In July 2004, CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.

Building Energy Efficiency Standards in Place and in Progress. PRC Section 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (applicable to newly constructed buildings, and additions to and alterations to existing buildings).

Appliance Energy Efficiency Standards in Place and in Progress. PRC Section 25402 authorizes the CEC to adopt and periodically update its appliance energy efficiency standards (applicable to devices and equipment using energy that are sold or offered for sale in California).

Fuel-Efficient Replacement Tires & Inflation Programs. State legislation established a statewide program to encourage the production and use of more efficient tires.

Measures to Improve Transportation Energy Efficiency. Builds on current efforts to provide a framework for expanded and new initiatives including incentives, tools, and information that advance cleaner transportation and reduce climate change emissions.

In March 2008, CAT subgroups submitted more than 100 GHG reduction measures to the CARB Office of Climate Change to be considered for inclusion in CARB's Scoping Plan. Cal/EPA also submitted a Report Card collected from CAT agencies on proposed GHG reduction measures,

³³ California Building Standards Commission, <http://www.bsc.ca.gov/CALGreen/default.htm>, accessed on September 21, 2010.

including an estimate of the actual emissions reductions anticipated from those measures. This report will be updated annually, with the most recent update included in CARB's Scoping Plan adopted in December 2008.

CARB Climate Change Scoping Plan

On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap of CARB's plans to achieve GHG reductions in California under AB 32 through subsequently enacted regulations.³⁴ CARB's Scoping Plan contains the main strategies California will implement to reduce CO₂eq emissions by 174 MMT, or approximately 30 percent, from the state's projected 2020 emissions level of 596 MMT of CO₂eq under a BAU (Business as Usual) scenario (This is a reduction of 42 MMT CO₂eq, or almost ten percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020).

CARB's Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors, i.e. transportation, electrical power, commercial and residential, industrial etc. CARB used three-year average emissions, by sector, for 2002-2004 to forecast emissions to 2020. At the time CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available.³⁵ The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32.

CARB's Scoping Plan also breaks down the amount of GHG emissions reductions CARB recommends for each emissions sector of the state's GHG inventory. CARB's Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO₂eq);
- The LCFS (15.0 MMT CO₂eq);
- Energy efficiency measures in buildings and appliances, and the widespread development of combined heat and power systems (26.3 MMT CO₂eq); and
- A renewable portfolio standard for electricity production (21.3 MMT CO₂eq).

CARB has identified a GHG reduction target of 5 MMT (of the 174 MMT total) through regional planning efforts to link land use/transportation/housing strategies in ways that reduce

³⁴ California Air Resources Board, *Climate Change Scoping Plan, A Framework for Change*, December 2008.

³⁵ California Air Resources Board, *Greenhouse Gas Inventory 2020*, as shown on the website <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>, accessed on July 1, 2009.

emissions from passenger vehicles and light duty trucks (Table 2 of CARB's Scoping Plan), by Implementation of Reduction Strategy T-3 regarding Regional Transportation-Related GHG Targets. CARB's Scoping Plan states that successful implementation of the plan relies on local governments' land use, planning, and urban growth decisions because local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions. CARB further acknowledges that decisions on how land is used will have large effects on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. CARB's Scoping Plan does not include any direct discussion about GHG emissions generated by construction activity. The measures approved by the Board will be developed over the next 2 years and be in place by 2012.

CARB's Scoping Plan expands the list of 9 Discrete Early Action Measures to a list of 39 Recommended Actions contained in Appendices C and E of CARB's Scoping Plan. These measures are presented in Table 4.5-1, *Recommended Actions from the Climate Change Proposed Scoping Plan*.

**Table 4.5-1
GHG Reduction Measures in CARB Scoping Plan**

ID #	Sector	Strategy Name
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards
T-2	Transportation	LCFS (Discrete Early Action)
T-3	Transportation	Regional Transportation-Related GHG Targets
T-4	Transportation	Vehicle Efficiency Measures
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)
T-6	Transportation	Goods-movement Efficiency Measures
T-7	Transportation	Heavy Duty Vehicle GHG Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization
T-9	Transportation	High Speed Rail
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh
E-3	Electricity and Natural Gas	Renewables Portfolio Standard
E-4	Electricity and Natural Gas	Million Solar Roofs
CR-1	Electricity and Natural Gas	Energy Efficiency
CR-2	Electricity and Natural Gas	Solar Water Heating
GB-1	Green Buildings	Green Buildings
W-1	Water	Water Use Efficiency
W-2	Water	Water Recycling
W-3	Water	Water System Energy Efficiency
W-4	Water	Reuse Urban Runoff
W-5	Water	Increase Renewable Energy Production
W-6	Water	Public Goods Charge (Water)
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission
I-4	Industry	Refinery Flare Recovery Process Improvements
I-5	Industry	Removal of CH ₄ Exemption from Existing Refinery Regulations

Table 4.5-1 (continued)
GHG Reduction Measures in CARB Scoping Plan

RW-1	Recycling and Waste Management	Landfill CH ₄ Control (Discrete Early Action)
RW-2	Recycling and Waste Management	Additional Reductions in Landfill CH ₄ – Capture Improvements
RW-3	Recycling and Waste Management	High Recycling/Zero Waste
F-1	Forestry	Sustainable Forest Target
H-1	High GWP Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)
H-2	High GWP Gases	SF ₆ Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)
H-3	High GWP Gases	Reduction in Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)
H-4	High GWP Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)
H-5	High GWP Gases	High GWP Reductions from Mobile Sources
H-6	High GWP Gases	High GWP Reductions from Stationary Sources
H-7	High GWP Gases	Mitigation Fee on High GWP Gases
A-1	Agriculture	CH ₄ Capture at Large Dairies
Source: CARB, 2008		

In *Association of Irrigated Residents, et al. v. California Air Resources Board, et al.*, the Superior Court of California for the County of San Francisco (Superior Court) issued a "Statement of Decision" on March 18, 2011 that prevents CARB from implementing a statewide GHG regulatory program under AB 32 until the agency complies with the requirements of CEQA. The decision partially grants a petition for a writ of mandate brought by a coalition of environmental justice organizations (Petitioners) that alleged that CARB's Scoping Plan violated both AB 32 and CEQA. Although the Superior Court denied all claims related to AB 32, the court found that CARB: 1) failed to adequately discuss and analyze the impacts of alternatives in its proposed Scoping Plan as required by its CEQA implementing regulations; and 2) improperly approved the Scoping Plan prior to completing the environmental review required by CEQA. In upholding the Petitioners' challenge on these two CEQA issues, the Superior Court issued a Peremptory Writ of Mandate and enjoined CARB from further implementation of the Scoping Plan until it complies with all CEQA requirements.

South Coast Air Quality Management District (SCAQMD) Draft Screening Thresholds

As an interim method for determining significance under CEQA until statewide significance thresholds are established, SCAQMD developed a draft tiered flowchart in August 2008 for determining significance thresholds for GHGs and CEQA for industrial projects where SCAQMD is acting as the lead agency.³⁶ In October 2008, an update to the SCAQMD tiered flowchart modified its original flowchart slightly, in conformance with CARB's October 2008 Preliminary Draft Staff Proposal, by adding separate Significance Screening Levels for industrial projects (10,000 MTCO₂eq/year) versus commercial/residential projects (3,000 MT/year CO₂E). Sources to be considered relative to the screening thresholds consist of both stationary and mobile (transportation) sources. In December 2008, SCAQMD adopted these thresholds for industrial facilities, but only with respect to projects where SCAQMD is the lead agency. These thresholds, as well as the interim draft tiering approach, are not mandated for local government approvals, and have not been adopted by the City of Banning. Additionally, SCAQMD is not recommending Tier 4 of these Screening Levels.

The SCAQMD flowchart uses a tiered approach in which a proposed project is deemed to have a less than significant impact related to GHG emissions when any of the following conditions are met:

- GHG emissions are within GHG budgets in an approved regional plan;
- Incremental increases in GHG emissions due to the project are below the defined Significance Screening Levels, or Mitigated to Less than the Significance Screening Level;
- Performance standards are met by incorporating project design features and/or implementing emission; and
- Carbon offsets are made to achieve target significance screening level.

SCAQMD GHG Rule Implementation

On December 5, 2008, SCAQMD adopted Rule 2700 – General, and Rule 2701 – So Cal Climate Solutions Exchange, which establishes the administrative structure for a voluntary program designed to quantify GHG emission reductions. Rule 2701 enables private parties to generate certified GHG emission reductions for projects in the district. Rule 2701 requires that reductions follow specific protocols. Approved protocols include Forest Projects, Urban Tree Planting and Manure Management. Of these, the Urban Tree Planting protocol would be applicable to the project. SCAQMD has not yet developed protocols for other reduction measures. The process of certifying GHG emission reductions requires submission of a Plan that must be approved prior to generating the certified GHG emissions that details the nature of the reductions, the

³⁶ South Coast Air Quality Management District, *Greenhouse Gas CEQA Significance Threshold: Significance Threshold Stakeholder Working Group #5*, August 27, 2008, <http://www.aqmd.gov/ceqa/handbook/GHG/aug27mtg/ghgmtg5.pdf>, accessed on October 23, 2008.

funding amount and source, the specific protocol that will be followed, the location of the project, the date the reductions are projected to begin, the length of time the project is anticipated to continue, the person responsible for the emission reduction project and the initial owner of the certified GHG emission reductions, once reductions have been verified and certified by the Executive Officer of SCAQMD. The Executive Officer will approve or deny the Plan within 60 days, unless mutually extended. Depending on the protocol utilized, the emissions reductions may not be certified until after information is provided quantifying the reductions for each calendar year. The Executive Officer issues the certified GHG emission reductions within 90 days of receipt of the information.

Rule 2702 – Greenhouse Gas Reduction Program, was approved in February 6, 2009. Rule 2702 establishes a voluntary air quality investment program from which SCAQMD can collect funds from parties that desire certified GHG emission reductions, pool those funds, and use them to purchase or fund GHG reduction projects within two years, unless extended by the Governing Board. The implementation of this program will also allow any party to eventually request GHG emission reduction credits, as available, which would be evaluated and either accepted or denied by the Executive Officer. Priority will be given to projects that result in co-benefit emission reductions of criteria and toxic air pollutants within environmental justice areas. These projects would follow pre-approved CARB and AQMD protocols. Currently, three protocols approved by CARB are included in Proposed Rule 2702: Forest Projects, Urban Tree Planting and Manure Management. Because projects are to follow protocols in the process, and because protocols only exist for three project types, voluntary applicability of the program is limited at present. Further, this voluntary program may compete with the cap-and-trade program identified for implementation in CARB's Scoping Plan, a regional plan or a federal cap and trade program.

Western Climate Initiative

California is working closely with six other states and four Canadian provinces in the Western Climate Initiative (WCI) to design a regional GHG emissions reduction program that includes a cap-and-trade approach. California's participation in WCI creates an opportunity to provide substantially greater reductions in GHG emissions throughout the region than could be achieved by California alone. The larger scope of the program also expands the market for clean technologies and helps avoid leakage; that is, the shifting of emissions from sources within California to sources outside the state. The WCI partners released the recommended design for a regional cap-and-trade program in September 2008. CARB embraces the WCI effort, and will continue to work with WCI partners. The creation of a robust regional trading system can complement the other policies and measures included in this plan, and provide the means to achieve the reduction of GHG emissions needed from a wide range of sectors as cost-effectively as possible.

CARB is currently conducting workshops to develop a cap-and-trade system. Pursuant to AB 32, the program will be launched by January 1, 2012.

4.5.3 SIGNIFICANCE THRESHOLD CRITERIA

As specified in Appendix G (Section VII) of the State CEQA Guidelines, a project may create a significant environmental impact involving greenhouse gas emissions if it causes one or more of the following to occur:

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or*
- b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

Greenhouse Gas Emissions

At this time, there is no agreed consensus in the State of California among CEQA lead agencies regarding the analysis of global climate change and the selection of significance criteria. In fact, numerous organizations, both public and private, have released advisories and guidance with recommendations designed to assist decision-makers in the evaluation of GHG emissions given the current uncertainty regarding when emissions reach the point of significance. That being said, several options are available to lead agencies.

First, lead agencies may elect to rely on thresholds of significance recommended or adopted by state or regional agencies with expertise in the field of global climate change (see CEQA Guidelines, §15064.7(c)). However, to date, neither CARB nor SCAQMD have adopted significance thresholds for GHG emissions for residential or commercial development under CEQA. CARB has suspended all efforts to develop a threshold, and SCAQMD's threshold remains in draft form. Accordingly, this option (i.e., reliance on an adopted threshold) is not viable for the City of Banning.

Of note, in December 2009, the San Joaquin Valley Unified Air Pollution Control District adopted guidance for use by lead agencies in the valley, in assessing the significance of a project's GHG emissions under CEQA. The guidance relies on the use of performance-based standards, and requires that projects demonstrate a 29-percent reduction in GHG emissions, from business-as-usual, to determine that a project would have a less than significant impact. The guidance is for valley land use agencies and not applicable to areas outside the district. Similarly, the Bay Area Air Quality Management District adopted its own GHG thresholds of significance on June 2, 2010. The threshold is based on quantitative standards including a per capita emission standard and project emission standard, as well as a qualitative standard based on compliance with a qualified GHG reduction strategy. The BAAQMD thresholds are based on an analysis of local inventories of GHG emissions and local reduction programs; therefore,

they would not be an appropriate basis for a GHG significance threshold in the City of Banning. It should be noted that the California Building Industry Association filed a lawsuit in November 2010 challenging the BAAQMD thresholds, alleging that the BAQMD violated CEQA when it failed to conduct any environmental review before adopting new standards.

Second, lead agencies may elect to use a zero-based threshold, such that any emission of GHGs is considered to be a significant and unavoidable impact. This type of threshold is not viable because it may indirectly truncate the analysis provided in CEQA documents and the mitigation commitments secured from new development, and could result in the preparation of extensive environmental documentation for even the smallest of projects, thereby inundating lead agencies and creating an administrative burden. Moreover, because the GHG analysis is a cumulative analysis, a zero based threshold would be inconsistent with CEQA Guidelines Section 15130(a)(3), which requires that cumulatively significant impacts, such as GHG emissions, be “cumulatively considerable”, as defined by Section 15065(a)(3).

Third, lead agencies may elect to utilize their own significance criteria, so long as such criteria are informed and supported by substantial evidence. Here, the City has elected to identify its own significance criterion until such time as a state or regional threshold is adopted by a competent authority (e.g., CARB or SCAQMD). Recent amendments to the CEQA Guidelines, and specifically the addition of CEQA Guidelines Section 15064.4, subdivision (b), informed the City’s selection of a significance criterion:

“A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;*
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;*
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project’s incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project”.*

Appendix G of the CEQA Guidelines also has been revised to provide some guidance regarding the criteria that may be used to assess whether a project’s impacts on global climate change are significant. The Appendix G environmental checklist form asks whether a project would: (i) generate GHG emissions, either directly or indirectly, that may have a significant impact on the

environment; or (ii) conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs.

4.5.4 IMPACT ANALYSIS AND MITIGATION

ANALYTICAL METHOD

This section describes the methodologies and assumptions used for identifying and analyzing the proposed Project's emissions of GHGs. The discussion includes the criteria for determining the level of significance of effects and describes the methods and assumptions used to conduct the analysis. As noted above, the increased concentration of GHGs in the atmosphere has been linked to global warming which can lead to climate change. GHG emissions have the potential to adversely affect the environment because they contribute, on a cumulative basis, to global climate change. The construction and operation of the project would contribute incrementally to GHG emissions. Therefore, project impacts of GHG emissions are analyzed on a cumulative basis.

No regulatory agency having jurisdiction over the Project, including the SCAQMD, has formally adopted a significance threshold for GHG emissions generated by a proposed project (for which SCAQMD is not the lead agency), or a uniform methodology for analyzing impacts related to GHG emissions on global climate change. Similarly, the City of Banning has not adopted any significance criteria or guidelines for GHG analysis.

Therefore, the GHG analysis below uses quantification methodology recommended by the CAPCOA document Quantifying Greenhouse Gas Mitigation Measures (August 2010), including quantitative estimates of construction and operational emissions. As noted above, the previously approved the Deutsch Specific Plan and certified Deutsch Specific Plan EIR addressed development of the Project site with up to 5,400 dwelling units. This analysis has been updated to reflect the currently proposed Butterfield Specific Plan, including the off-site infrastructure and 21-acre unincorporated parcel. The Project's impacts are analyzed at full Project build-out and in the Interim Phase between the site's initial grading and full build-out. In addition, long-term and construction phase impacts are analyzed for both on-site and off-site activity, including installation of off-site infrastructure.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing local, State and federal regulations noted below will avoid or mitigate potential impacts related to climate change. The following Project Design Features would also reduce, avoid or offset potentially adverse impacts:

- 1) The Project is proposed to be phased, with the initial Phase IA grading limited to the area necessary to achieve mass balancing and proper drainage of the overall

property, leaving approximately 40% (over 500 acres) of the site in its current native condition until such time the remaining phases begin to develop. This phased development will reduce the overall area being disturbed at any one time, and will reduce the overall annual grading emissions.

- 2) Project design features incorporate applicable recommendations from the Attorney General, as discussed in Impact 4.5-1 below.
- 3) The Project's water supply sources are focused first on local supplies, which will reduce reliance upon imported water, thereby reducing GHG emissions associated with energy required for pumping and delivering the water to the site.
- 4) Tables 4.5-3 and 4.5-4 identify Project Design Features that will reduce greenhouse gas emissions, as well as criteria pollutant emissions.
- 5) The Project has been redesigned from the currently approved Deutsch Specific Plan. The redesigned Project substantially increases the total open space, resulting in increased carbon sequestration, reduced grading emissions, and reduced operational emissions, as discussed further below.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.5-1: Greenhouse Gas Emissions

Threshold: *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Determination: *Potentially Significant and Unavoidable with Mitigation Incorporated*

Effects of Climate Change on the Project

The primary effect of global climate change has been a rise in average global tropospheric temperature of 0.2 degrees Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005.³⁷ Climate change modeling using year 2000 emission rates shows that further warming would occur, which would include further changes in the global climate system during the current century.³⁸ Changes to the global climate system and ecosystems and to California could include, but are not limited to:

³⁷ Ibid.

³⁸ Ibid.

- The loss of sea ice and mountain snow pack resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;³⁹
- Rise in global average sea level primarily due to thermal expansion and melting of glaciers and ice caps and the Greenland and Antarctic ice sheets;⁴⁰
- Changes in weather that include widespread changes in precipitation, ocean salinity, and wind patterns, and more energetic extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;⁴¹
- Decline of the Sierra snow pack (which accounts for approximately half of the surface water storage in California) by 70 percent to as much as 90 percent over the next 100 years;⁴²
- Increase in the number of days conducive to ozone formation by 25 to 85 percent (depending on the future temperature scenario) in high ozone areas of Los Angeles and the San Joaquin Valley by the end of the 21st century;⁴³ and
- High potential for erosion of California's coastlines and sea water intrusion into the Delta and levee systems due to the rise in sea level.⁴⁴

While there is broad agreement on the causative role of GHGs to climate change, there is considerably less information or consensus on how climate change would affect any particular location, operation, or activity. The IPCC has published numerous reports on potential impacts of climate change on the human environment. These reports provide a comprehensive and up-to-date assessment of the current state of knowledge on climate change. Despite the extensive peer review of reports and literature on the impacts of global climate change, the IPCC notes the fact that there is little consensus as to the ultimate impact of human interference with the climate system and its causal connection to global warming trends.

Other predicted physical and environmental impacts associated with climate change include heat waves, alteration of disease vectors, biome shifts, impacts on agriculture and the food supply, reduced reliability in the water supply, and strain on the existing capacity of sanitation and water-treatment facilities (potential climate change effects upon water supply are further discussed in Appendix J, *Water Supply Assessment*). While these issues are a concern for society at large, none of these impacts would have a disproportionate effect on the implementation of the proposed Specific Plan. A disproportional effect is when the effects of climate change would impact the Project site more than another location. As indicated in the analysis above,

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² California Environmental Protection Agency, *Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature (Executive Summary)*, March, 2006.

⁴³ Ibid.

⁴⁴ Ibid.

the impacts to the project would be similar to a majority of other locations in western Riverside County.

Greenhouse Gas Emissions

Direct Project Related Sources of Greenhouse Gases

Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources. Table 4.5-2, *Estimated Greenhouse Gas Emissions*, estimates the CO₂, N₂O, and CH₄ emissions of the proposed Project. The Specific Plan does not propose land uses that would generate other forms of GHG emissions in quantities that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions.

Mobile source emissions are based on the Project fleet mix and resultant vehicle miles traveled (VMT). URBEMIS2007 extrapolates fleet mixes from the EMFAC2007 files that are specific for the region. Additionally, VMT is calculated based Caltrans survey data specific to Southern California⁴⁵. As seen in Table 4.5-2, Business as Usual (BAU) GHG emissions associated with area sources (i.e., natural gas usage and landscape equipment) and mobile sources would be 18,386.51 MTCO₂eq/year, and 110,474.45 MTCO₂eq/year, respectively. BAU emissions refer to the emissions that would be expected to occur in the absence of GHG reductions from project design features or GHG mitigation measures. GHG emissions from construction are amortized over the lifetime of the proposed Project (30 years) and later added to the total operational emissions, resulting in 3,472.57 MTCO₂eq/year.⁴⁶

Indirect Project Related Sources of Greenhouse Gases

Electricity Consumption. Indirect GHG emissions from electricity usage are based on emissions factors from the California Air Pollution Control Officers Association (CAPCOA) and the California Climate Action Registry (CCAR)⁴⁷ specific to the power content for the City of Banning; refer to Appendix B, *Air Quality Data*. The City of Banning Electric Department provides electricity to the City and procures the majority of its electricity through contracts with the Southern California Public Power Authority. These contracts include participation in the San Juan coal plant, the Palo Verde nuclear plant, and the Hoover hydropower facility. As indicated by the Banning Electric Utility Department, the power generation resource mix for the City is made up of 20 percent renewable (geothermal), 65 percent coal, 1 percent hydroelectric,

⁴⁵ California Department of Transportation, *Caltrans Statewide Survey Data*, 1991, Rimpo and Associates, *URBEMIS2007 for Windows Users' Guide Appendices*, November 2007.

⁴⁶ The project lifetime is based on the standard 30 year assumption of the South Coast Air Quality Management District (<http://www.aqmd.gov/hb/2008/December/081231a.htm>).

⁴⁷ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, September 2010, and California Climate Action Registry Database, Power/Utility Protocol (PUP) Report, 2006.

and 13 percent nuclear. The emission factors for electricity use would be 641 pounds of CO₂ per megawatt hour [MWh], 0.036 pounds of N₂O per MWh, and 0.024 pounds of CH₄ per MWh.⁴⁸

The proposed Project would have an electric energy demand of approximately 53,092 MWh per year. Of that, residential dwelling units would represent approximately 66 percent, commercial uses would represent 29 percent, the elementary school would represent 1 percent, the wastewater treatment plant would represent 3 percent, and the golf course would represent 1 percent. The potential development within the Plan area would indirectly result in 15,715.31 MTCO₂eq/year due to electricity usage; refer to Table 4.5-2. It should be noted that SB 1078 requires retail sellers of electricity to provide at least 20 percent of their supply from renewable sources by 2017. This legislation also requires that each retail seller increase its total procurement of eligible renewable energy resources by at least an additional 1 percent of retail sales per year so that 20 percent of its retail sales are procured from eligible renewable energy resources. CARB has also adopted the “Renewable Electricity Standard” on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers. SB 2 also requires California to get 33 percent of its electricity from renewable sources by the year 2020. As a result, emissions from electricity consumption in the City would decrease, and at the time of the Project buildout, emissions would be less than current projections.

Water Supply. Water demand for the proposed uses would be approximately 4,224 acre-feet per year, based on estimations from the Water Supply Assessment prepared for the Project for the proposed Specific Plan land uses. Emissions from indirect energy impacts due to water supply, treatment, distribution, and wastewater treatment would result in 9,671.93 MTCO₂eq/year.

Solid Waste. Based on solid waste generation rates from the Department of Resources Recycling and Recovery (CalRecycle), solid the proposed Project would generate approximately 13,502 tons of solid waste per year. Emissions from indirect solid waste disposal and off-gassing would result in 3,125.21 MTCO₂eq/year.

Total Project-related business as usual operational emissions (direct and indirect) would result in 161,118.99 MTCO₂eq/year without incorporation of Project design features (reduction measures). This would be a significant Project impact. An analysis of the reduction measures is included below.

⁴⁸ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, September 2010, California Climate Action Registry (CCAR) Database, *Power/Utility Protocol (PUP) Report*, 2006, and U.S. Energy Information Administration, *Domestic Electricity Emissions Factors 1999-2002*, October 2007.

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Table 4.5-2
Estimated Greenhouse Gas Emissions⁴⁹

Source	CO ₂	N ₂ O		CH ₄		Total Metric Tons of CO ₂ eq/yr ⁶
	Metric Tons/yr	Metric Tons/yr	Metric Tons of CO ₂ eq/yr ⁶	Metric Tons/yr	Metric Tons of CO ₂ eq/yr ⁶	
Construction Emissions ¹						
Phase 1 (2012–2015)	24,958.25	0.44	9.30	1.96	607.72	25,575.27
Phase 2 (2016–2018)	10,199.09	0.02	0.52	0.12	39.12	10,238.72
Phase 3 (2019–2031)	60,191.09	0.94	20.67	5.55	1,712.55	61,924.31 ^s
Phase 4 (2032–2034)	2,929. 62	0.04	0.93	0.20	64.47	2,995.02
Phase 5 (2035–2037)	3,124.01	0.05	1.18	0.26	81.14	3,443.63
<i>Amortized Construction Emissions (over 30 years)</i>	3,380.07	0.05	1.09	0.27	83.50	3,472.57
Operational Emissions						
Direct Emissions						
Area Source ²	18,386.35	0.00	0.16	0.00	0.01	18,386.51
Mobile Source ³	100,354.78	32.99	10,266.31	7.93	166.53	110,747.45
Total Direct Emissions⁷	118,741.12	32.99	10226.31	7.93	166.54	129,133.97
Indirect Emissions						
Electricity Consumption ⁴	15,436.53	0.86	266.74	0.57	12.05	15,715.31
Water Supply ⁵	9,621.00	0.16	50.70	0.01	0.23	9,671.93
Solid Waste	--	--	--	148.82	3,125.21	3,125.21
Total Indirect Emissions⁷	25,057.53	1.02	317.44	0.58	12.28	28,512.43
<i>Total Project- Related Business as Usual GHG Emissions</i>	161,118.99 MTCO ₂ eq/yr					
<i>Total Mitigated Project-Related Emissions</i>	124,024.67 MTCO ₂ eq/yr ⁷					

(notes continued on next page)

⁴⁹ These estimates do not account for certain non-standard Project Design Features and Project-specific mitigation measures, such as use of *machine-guided grading* (estimated to reduce construction emissions by up to 15 percent), and allowance for renewable energy features such as rooftop solar panels, electric vehicle charging, and/or hydrogen vehicle charging stations.

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(notes continued from previous page)

Notes:

1. Emissions calculated using CARB's Construction Equipment Emissions Table and the URBEMIS 2007 computer model. Construction emissions are total emissions per phase and not per year. For purposes of this GHG emissions summary, construction emissions are amortized over the 30-year life of the Project to calculate "net" GHG emissions, including construction and operation.
2. Emissions calculated using URBEMIS 2007 computer model for CO₂ and the SCAQMD's CEQA Handbook for N₂O and CH₄. Area sources include natural gas consumption.

Footnotes continued on next page.

Footnotes continued from prior page.

3. Emissions calculated using URBEMIS 2007 computer model and EMFAC2007, *Highest (Most Conservative) Emission Factors for On-Road Passenger Vehicles and Delivery Trucks*.
4. Electricity Consumption emissions are based on demand factors from the City of Banning Electric Department and GHG emissions factors are from the following sources: CAPCOA, *Quantifying Greenhouse Gas Mitigation Measures*, September 2010 and the CCAR Database, Power/Utility Protocol (PUP) Report, 2006.).
5. Water usage based on the water consumption identified in the *Water Supply Assessment for the Butterfield Specific Plan*, May 13, 2011. Emissions are based on Banning Electric energy emissions factors and energy usage factors for water conveyance from the California Energy Commission, *Water Energy Use in California*, accessed July 2010. <http://www.energy.ca.gov/research/iaw/industry/water.html>.
6. CO₂ Equivalent values calculated using the U.S. Environmental Protection Agency Website, *Greenhouse Gas Equivalencies Calculator*, <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>, accessed July 2010.
7. Totals are approximate due to rounding. Refer to discussion below and Appendix B for detailed mitigation calculations.
8. Phase 3 emissions would occur over an approximate 12 year period (2019-2031). Therefore, GHG emissions are higher during this phase, as compared to Phases 1, 2, 4, and 5, which occur over approximately 3-4 years each.

Consistency with the California Attorney General's Mitigation Measures

The proposed Specific Plan would incorporate several design features that are consistent with the California Office of the Attorney General's updated recommended measures to reduce GHG emissions⁵⁰. A list of the Attorney General's recommended measures and the Project's compliance with each applicable measure are listed in Table 4.5-3, *Project Consistency with the Attorney General's Recommendations*. The Specific Plan would incorporate sustainable practices which include water, energy, solid waste, land use, and transportation efficiency measures. The California Attorney General's recommendations comprehensively outline the various categories of reduction measures and provide a framework for the GHG analysis. The measures are not necessarily exhaustive, and are not utilized as thresholds.

Table 4.5-3 also identifies GHG emissions reductions associated with the measures that would be implemented by the Project. The emissions reductions calculations are based on the CAPCOA document, *Quantifying Greenhouse Gas Mitigation Measures*, September 2010. This resource document primarily focuses on the quantification of project-level mitigation of greenhouse gas emissions associated with land use, transportation, energy use, and other related project areas. Various strategies also require the implementation of other strategies to be effective. When these strategies are implemented together, the combination can result in either an enhancement

⁵⁰ California Attorney General, *The California Environmental Quality Act Addressing Global Warming Impacts at the Project Level*, January 2010.

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to the primary strategy by improving its effectiveness or a measurable improvement in mitigation effectiveness. Therefore, this is accounted for in the emissions reduction calculations to avoid double counting. Refer to Appendix B, *Air Quality Data*, for the emissions reductions calculations.

Table 4.5-3
Project Consistency with the Attorney General's Recommendations

Attorney General's Recommended Measures	Project Applicability	Emissions Source Percent Reduction ¹	Overall Percent Reduction
Energy Efficiency			
Incorporate green building practices and design elements.	The proposed Project would comply with the 2010 California Green Building Code, which became effective on January 1, 2011. The Green Building Code requires a 20 percent reduction in water usage and a 50 percent reduction of construction waste. It also requires inspection of energy systems to ensure the efficiency of heating, ventilation, and air conditioning (HVAC) units, and other mechanical equipment. Mitigation Measure GHG-1 includes energy efficiency measures to ensure compliance with voluntary Tier 1 measures of the 2010 California Green Building Standards, which results in a 15-percent overall reduction in energy consumption. ⁵¹ Section A4.203 of the 2010 <i>California Green Building Standards Code</i> Provides the following definition for the voluntary tiers: <i>A4.203.1 Energy performance. Using an Alternative Calculation Method (ACM) approved by the California Energy Commission, calculate each building's energy and CO₂ emissions, and compare it to the standard or "budget" building to achieve the following:</i> <i>Tier 1. Exceed the California Energy Code based on the 2008 energy standards requirements by 15 percent.</i> This 15-percent reduction is based on implementation of Mitigation Measure GHG-1, which requires energy efficiency measures including the applicant's "Livingsmart" program. GHG-1 requires a 15-percent reduction in energy/natural gas usage beyond the requirements of Title 24 and consistent with Tier 1 of the	15%	3.17%
Meet recognized green building and energy efficiency benchmarks.			
Install energy efficient lighting (e.g., light emitting diodes [LEDs]), heating and cooling systems, appliances, equipment, and control systems.			
Use automatic covers, efficient pumps and motors, and solar heating for pools and spas.			

⁵¹ Section A4.203 (Performance Approach for Residential Voluntary Tiers) and Section A5.601.2.3 (Non Residential Voluntary Tiers) of the 2010 *California Green Building Standards Code*, requires Tier 1 voluntary measures to exceed the California Energy Code based on the 2008 energy standards requirement by 15 percent.

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Table 4.5-3 (continued)
Project Consistency with the Attorney General's Recommendations

	<p>2010 California Green Building Standards. Tier 1 of the Green Building Standards Code is voluntary. While the Project will comply with all mandatory requirements of the Code, it is also agreeing to this additional 15-percent reduction by complying with Tier 1 of the voluntary residential measures.</p> <p>Also, the City of <i>Banning Clean and Green Report and Recommendations</i> (CGRR) addresses energy conservation and efficiency. Energy conservation measures include an expanded green building program, efficient equipment, appliances, and systems, on-site energy generation (i.e., photovoltaics), and expanded use of alternative fuels. The CGRR also identifies utilizing natural daylight, passive heating/cooling, and Energy Star appliances. The CGRR identifies photovoltaic, energy conservation/weatherization, central air conditioning and heat pump, air conditioning replacement, new construction energy conservation, Energy Star appliances, ultra low-flush toilet, shade tree, and energy audit rebate and incentive programs offered by the City's Public Utilities Department.</p>		
Use passive solar design, e.g., orient buildings and incorporate landscaping to maximize passive solar heating during cool seasons, minimize solar heat gain during hot seasons, and enhance natural ventilation. Design buildings to take advantage of sunlight.	<p>Trees would be incorporated into the Project site design which would provide shade throughout the site. Additionally, the Project would include energy efficient HVAC systems, appliances and equipment, and efficient control systems.</p> <p>Key energy efficiency strategies would include codes and standards, existing buildings, improved utility programs, solar water heating, and combined heat and power, among others. However, the Specific Plan does not include <i>requirements</i> for passive solar design.</p>	N/A	N/A
Install light colored "cool" roofs and cool pavements.	<p>Roofs of proposed residential structures would be California Green Building Standard Code Tier 1 Cool Roofs. Shade trees would also be incorporated into the Project site design.</p> <p>Section 3.2.5 of the Specific Plan requires reduced street lights on local streets. Per City approval, the Specific Plan would include a dark sky program to reduce the number of street lights in tracts. In local areas, street lights would only be located at local street intersections, knuckles, and cul-de-sacs, they would not be located mid-blocks. LEDs would be utilized for streetlights and traffic signals.</p>	Accounted for Above N/A	N/A N/A

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Table 4.5-3 (continued)
Project Consistency With the Attorney General's Recommendations

Attorney General’s Recommended Measures	Project Applicability	Emissions Source Percent Reduction ¹	Overall Percent Reduction
Renewable Energy			
Install solar, wind, and geothermal power systems and solar hot water heaters.	The proposed Project would include a solar ready roof for future solar uses. A minimum of 300 square feet of unobstructed roof area facing within 30 degrees of south would be provided for future solar collector or photovoltaic panels. Rough-in penetrations through the roof surface within 24 inches of the boundary of the unobstructed roof area would be provided for electrical conduit and water piping. However, GHG reductions are not able to be quantified as of yet, as the amount of units that would actually install photovoltaic panels is unknown at this time.	N/A	N/A
Install solar panels on unused roof and ground space and over carports and parking areas.			
Where solar systems cannot feasibly be incorporated into the project at the outset, build “solar ready” structures.			
Water Conservation and Efficiency			
Incorporate water-reducing features into building and landscape design.	The Project would include energy-efficient clothes and dishwashers, water-saving faucets and fixtures, drought-tolerant landscaping, and multi-programmable irrigation clocks. Implementation of Mitigation Measure GHG-1 would ensure that water conservation measures are included in the proposed Project.	20%	1.20%
Create water-efficient landscapes.			
Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.			
Design buildings to be water-efficient. Install water-efficient fixtures and appliances.			
	The Specific Plan would also be subject to the water conservation measures within Municipal Code Chapters 13.16.020 and 13.16.030. These measures restrict water use during water supply emergencies and limit the time and amount of water usage. Also, Municipal Code measures, including Chapter 17.32, Landscape Standards, require the use of xeriscape, which combines landscape features and other techniques to reduce water consumption associated with landscaping. Drought-tolerant and native landscaping would be utilized throughout the Plan area.		
	Additionally, the CGRR addresses water conservation and efficiency. The CGRR includes measures relating to the use of updated technology enabling developers and homeowners to install efficient equipment and appliances (i.e., faucet aerators, low-flow shower head, low-flow toilets, etc.), and landscape/irrigation systems that would reduce water demand.		
Implement low-impact development practices that maintain the existing hydrology of the site to manage storm water and protect the environment.	The Project would include water quality features consisting of vegetated detention basins and vegetated flow through swales that would be located in the golf course areas, open space areas, or and in the residential	N/A	N/A

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Table 4.5-3 (continued)
Project Consistency With the Attorney General's Recommendations

Attorney General's Recommended Measures	Project Applicability	Emissions Source Percent Reduction ¹	Overall Percent Reduction
	areas.		
Offset water demand from new projects so that there is no net increase in water use.	<p>The Specific Plan proposes a large multi-use basin in the northern portion of the Project site. The basin would capture drainage flows, and would also potentially store recycled water, stormwater, and raw (pre-treated) State Water Project water which would be used for irrigation and groundwater recharge purposes.</p> <p>The proposed Project includes an on-site recycled water distribution system to reduce imported water demands (accomplished through either an onsite satellite treatment plant or expansion of the City's existing treatment plant). Recycled water would be used to irrigate the golf course and the common landscaped areas of the Project in order to reduce the demand for potable water. The proposed Project would have a overall water demand of 1,376 million gallons per year and reclaimed water would offset approximately 454 million gallons of water used outdoors for irrigation; refer to Section 4.14, Water Supply. Using reclaimed water uses less energy than using potable water that is pumped and transported and treated more extensively.</p>	53%	3.18%
Solid Waste Measures			
Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).	The Specific Plan requires future development to include trash enclosures that accommodate waste and recyclables. According to CalRecycle, as of 2006, the City of Banning has a diversion rate of 53 percent. ⁵² Also, construction waste would be recycled to obtain maximum use of raw materials. However, the use of alternative construction fuels is the only form of quantifiable reductions. Sustainable building materials would be utilized and would be manufactured using renewable and carbon-neutral biomass fuels.	53%	1.02%
Integrate reuse and recycling into residential, industrial, institutional and commercial projects.			
Provide easy and convenient recycling opportunities for residents, the public, and tenant businesses.			
Land Use Measures			
Ensure consistency with "smart growth" principles – mixed-use, infill, and higher density projects that provide alternatives to individual vehicle travel and promote the	The Specific Plan includes proposed medium density and high density residential development. A total of 1,960 medium density dwelling units are proposed, with an average gross density of six dwelling units per acre. A total of 1,205 high density dwelling units are	10.24%	6.96%

⁵² The 53% reduction is based on the usage of reclaimed water. Refer to the reduction calculations in Appendix B2, *Climate Change/Greenhouse Gas Data*.

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Table 4.5-3 (continued)
Project Consistency With the Attorney General's Recommendations

Attorney General's Recommended Measures	Project Applicability	Emissions Source Percent Reduction ¹	Overall Percent Reduction
efficient delivery of services and goods.	<p>proposed, with an average gross density of 16.4 dwelling units per acre. School, commercial, and open space land uses are dispersed throughout the Project site next to residential land uses. The proximity of multiple land uses would reduce vehicle reliance and associated vehicle miles traveled (VMT).</p> <p>The Specific Plan has also been designed to encourage pedestrian movement with dedicated walking paths and access to natural open space. The Specific Plan includes lanes and paths for low impact forms of travel including bicycle paths, neighborhood electric vehicles (NEVs) with access to commercial and recreational centers.</p>		
Incorporate public transit into the project's design.	<p>The Specific Plan would expand bus service to the Project site, as well as within the site. The Project would coordinate with the Banning Pass Transit and the Riverside County Transit agencies to expand transit service and frequency. The Project would expand and incorporate public transit along Wilson Street, Highland Home Road, and Highland Springs Avenue.</p> <p>As noted in Appendix B2, <i>Climate Change/Greenhouse Gas Data</i>, this reduction is based on the expansion of the transit network that is required in Mitigation Measure GHG-3 and calculations are based on CAPCOA factors and criteria. For this reduction, the CAPCOA criteria requires a bus stop within 3 miles of the Project. Higher reductions are available for transit within one-half mile of the Project. Mitigation Measure GHG-3 requires expansion of the existing transit system based on coordination with the City and the appropriate transit agencies. The addition of even one transit stop along any of the Project arterial streets would qualify the Project for the reduction referenced above, because it would place a stop within 3 miles of any point in the Project.</p>	6.37%	4.33%
Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.	The proposed Project includes 428.9 acres of open space, which has been increased from the 268 acres of open space designated under the previously approved Deutsch Specific Plan. The increase in open space for the proposed Project is due to the use of clustered development and a more efficient land use design.	N/A	N/A
Include pedestrian and bicycle	The Specific Plan proposes designated on-street bicycle	0.625%	0.43%

Table 4.5-3 (continued)
Project Consistency With the Attorney General's Recommendations

Attorney General's Recommended Measures	Project Applicability	Emissions Source Percent Reduction ¹	Overall Percent Reduction
<p>facilities within projects and ensure that existing non-motorized routes are maintained and enhanced.</p>	<p>lanes, trails, pathways, sidewalks, and combination sidewalks/trails for pedestrian and bicycle use. The southwestern corner of the Plan area is located approximately 300 feet from an existing bus stop (at the hospital on the corner of North Highland Springs Avenue and West Wilson Street). Also, the Banning Pass Transit and the Riverside County Transit agencies would coordinate to expand bus service to the Project site, as well as within the site.</p> <p>Bicycle racks would be provided at commercial uses and at the multi-family dwelling units. Additionally, traffic calming devices are proposed for the Plan area (i.e., raised medians and landscaped medians within the roadways). The Specific Plan includes a circulation plan to accommodate neighborhood electric vehicles or low speed electric vehicles, which encourages additional modes of travel within the Plan area. Incentives or a program giving preference to local residents or employees working within a specified radius may be considered in order to reduce VMT. To the extent practical, Pardee would utilize the local workforce during construction of the proposed Project.</p> <p>The proposed Project includes a variety of alternative transportation modes such as a pedestrian trail system, accommodation for Neighborhood Electric Vehicles (NEV), and bicycle lanes. Local streets would provide access from arterial highways to proposed residential areas, parks, schools, commercial sites, golf course, and other recreational areas.</p> <p>The circulation plan includes internal loop roads that facilitate transit and connectivity. The Project roadways that are modified collector classification or higher are designed to provide on-street bicycle lanes, minimum 6 feet wide, providing connections to regional and local facilities, and residential areas within the Project. Trails/pathways and sidewalks providing pedestrian safety from vehicles will also be provided along roadways within the Project.</p> <p>Additionally, proposed Project improvements for</p>		

**BUTTERFIELD SPECIFIC PLAN
Draft Subsequent EIR****4.5 CLIMATE CHANGE****Table 4.5-3 (continued)
Project Consistency With the Attorney General's Recommendations**

Attorney General's Recommended Measures	Project Applicability	Emissions Source Percent Reduction¹	Overall Percent Reduction
	Highland Springs Avenue and Highland Home Road would include a bike lane on each side of the right-of-way, as well as other improvements.		
Transportation and Motor Vehicles			
Promote "least polluting" ways to connect people and goods to their destinations.	Bicycle lanes would be incorporated into the on-site street design for encouragement of alternative transportation modes. Bicycle racks would be provided at commercial uses and at the multi-family dwelling units. Also, the Project would be located in the vicinity of multiple recreational trails, encouraging walking and bicycling. The Specific Plan includes a circulation plan to accommodate neighborhood electric vehicles or low speed electric vehicles, which encourages additional modes of travel within the Plan area. Incentives or a program giving preference to local residents or employees working within a specified radius may be considered in order to reduce VMT.	Accounted for Above	N/A
Incorporate bicycle lanes, routes and facilities into street systems, new subdivisions, and large developments.			
Require amenities for non-motorized transportation, such as secure and convenient bicycle parking.			
Connect parks and open space through shared pedestrian/bike paths and trails to encourage walking and bicycling. Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.			
Work with the school districts to improve pedestrian and bike access to schools and to restore or expand school bus service using lower-emitting vehicles.	The school sites within the Specific Plan would be located within the residential neighborhoods in order to improve bicycle and pedestrian access. The location of the schools and inclusion of bicycle and pedestrian amenities would reduce the number of vehicle trips in the area.	Accounted for Above	N/A
Create a ride sharing program. Promote existing ride sharing programs e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles, and providing a web site or message board for coordinating rides.	The proposed Specific Plan would provide an area for ride sharing that would allow employers to coordinate with commuters to share rides or use alternative forms of transportation.	Accounted for Above	N/A
Create local "light vehicle" networks, such as neighborhood electric vehicle systems.	The Specific Plan would accommodate neighborhood electric vehicles or low speed electric vehicles, which encourages additional modes of travel within the Plan area. On-site residential units would be supplied with a dedicated circuit for electrical vehicles, which could incentivize residents to purchase low- or zero-emission	N/A	N/A
Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles.			

BUTTERFIELD SPECIFIC PLAN
Draft Subsequent EIR

4.5 CLIMATE CHANGE

Table 4.5-3 (continued)
Project Consistency With the Attorney General's Recommendations

Attorney General’s Recommended Measures	Project Applicability	Emissions Source Percent Reduction ¹	Overall Percent Reduction
	vehicles.		
Enforce and follow limits idling time for commercial vehicles, including delivery and construction vehicles.	Construction vehicles are required by CARB to meet the terms set forth in CARB Regulation for in-use Off Road Diesel Vehicles, paragraph (d)(3) Idling. All vehicles, including diesel trucks accessing the Project site, would be subject to CARB measures and would be required to adhere to the five-minute limit for vehicle idling. Also refer to Mitigation Measures AQ1 and AQ2.	N/A	N/A
Preserve forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, groundwater recharge areas and other open space that provide carbon sequestration benefits.	The Specific Plan buildout would include trees and open space throughout the Plan area, including 24 park areas ranging from neighborhood mini-parks to community parks. As noted in the Specific Plan, the Project would include ornamental trees and vegetation, including landscaped parkways within the Project’s circulation system. Future projects would be subject to Municipal Code Chapter 12.48, which includes provisions for tree protection, new tree planting, and trees in new development areas. Projects would also be subject to the requirements of the City’s Streetscape/Landscape Guidelines.	N/A	N/A
Protect existing trees and encourage the planting of new trees. Adopt a tree protection and replacement ordinance.			
Total Reduction Percentage:		--	20.29%
Source: California Office of the Attorney General, <i>Addressing Climate Change at the Project Level</i> , updated January 6, 2010.			
Notes: 1. These values represent the emissions reductions in each individual sector (e.g., emissions from energy usage, water usage, transportation, etc.). Each sector’s reduction percentages are scaled proportionally to their contribution to the total project-generated emissions. For example, transportation emissions account for 68.7 percent of total emissions, and 23.6 percent reduction would apply to transportation related emissions. Therefore, the reduction is calculated by multiplying 0.687 by 0.236 for a scaled reduction of 0.162 (16.2 percent). This was completed for each sector. The total emissions reduction applied to the project is a sum of the scaled sector reduction percentages. Emissions reductions calculated in accordance with the California Air Pollution Control Officers Association guidance document, <i>Quantifying Greenhouse Gas Mitigation Measures</i> , September 2010 (refer to Appendix B, <i>Air Quality Data</i>).			

Analysis

The proposed Specific Plan would facilitate the construction of residential, commercial, school, golf course, and open space uses within an undeveloped area of Banning. The conservative nature of the analysis should be noted because a large percentage of the operational GHG emissions estimate does not reflect improvements in technology and other reductions in GHG emissions from vehicles and other sources that would occur pursuant to State regulations, such as SB 2, AB 1493, SB 1368, AB 32, and Executive Order S-3-05, as well as regulations that have yet to be created. For example, mobile source emissions make up approximately 68.7 percent of

the Project's total Business as Usual GHG emissions. The emissions inventory depicted in Table 4.5-2 does not account for emissions reductions that would result from the implementation of AB 1493.

As shown in Table 4.5-2, the proposed Project would result 161,118.99 MTCO₂eq/year of direct and indirect GHGs without reductions from Project design features. Mitigation Measure GHG-1 and GHG-2 have been formulated in order to ensure such GHG Project design features are incorporated into the implementation of the Specific Plan. To quantify GHG emissions reductions resulting from Project operations, the CAPCOA *Quantifying Greenhouse Gas Mitigation Measures* (September 2010) guidance document was utilized. With implementation of Mitigation Measure GHG-1 and GHG-2, the Specific Plan would be required to incorporate sustainable practices which include water, energy, solid waste, and transportation efficiency measures that are summarized in Table 4.5-3. Based on the reduction measures in Table 4.5-3, the proposed Specific Plan would reduce its GHG emissions 20.29 percent below the Business as Usual scenario, to 124,024.67 MTCO₂eq/year. Compared to global emissions of 25 to 30 billion MTCO₂eq, the Project's incremental contribution is less than 0.0005%.

As described above, the proposed Project includes various design features that would reduce vehicle miles traveled and promote efficiency and sustainability. For example, the proposed Project would increase open space to 428.8 acres from the 268 acres designated under the previously approved Deutsch Specific Plan. The increase in open space for the proposed Project is due to the use of clustered development and a more efficient land use design, resulting in increased carbon sequestration from additional open space, and reduced GHG emissions during construction and operation due to reduced grading footprint and clustered development. The efficient land use design would facilitate alternative forms of transit throughout the Project, including biking and neighborhood electric vehicles (NEVs). Furthermore, the Project would expand public transit network to provide service throughout the site. These features would ensure that the Project is consistent with regional land use planning goals. However, it should be noted that SCAG has not yet adopted specific implementation strategies that would be relevant for individual projects.

Conclusion

The Project has implemented reasonable and feasible mitigation measures and has incorporated special Project Design Features to reduce greenhouse gas emissions to the extent feasible. In addition, the Project is consistent with the Deutsch Specific Plan represented in the adopted City of Banning General Plan, and therefore is consistent with the regional growth emissions included in SCAG, SCAQMD, and CARB climate change planning and policy documents.

While the Project's design features and mitigation measures would reduce GHG emissions by approximately 20% over BAU, the project's cumulative contribution would remain at approximately 124,000 metric tons of CO₂E. Without any applicable numeric standards, it can

not be concluded that these emissions are not cumulatively significant. Further, because GHG emission impacts are global and result from the buildup of GHG emissions over many years, the global cumulative effects could remain potentially significant and unavoidable without regard to the Project's design features and mitigation measures.

Impact 4.5-2: Greenhouse Gas Reduction Plan

Threshold: *Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Determination: Potentially Significant and Unavoidable with Mitigation Incorporated

The City does not currently have an adopted plan, policy, or regulation for the purpose of reducing GHGs; however, there are regional and State plans described above, including proposed AB 32 scoping plan, SCAG SB 375 targets and the State's regulatory framework. No other applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions apply to the Project area, other than those noted above.

Achieving the statewide AB 32 target of 28.5 percent is not required for individual projects to demonstrate consistency or the lack of a significant impact, as this target is statewide, and the majority of GHG emissions are generated from industrial sources (such as electrical generating plants) and mobile vehicle emissions, both of which are regulated by other state and federal agencies and are outside the control of the City of Banning. Executive Order S-3-05 includes a long-term goal of 80 percent GHG reduction by 2050, although the mechanisms for achieving this target have not been identified, and are also outside the control of the City of Banning.

On September 23, 2010, CARB adopted Resolution 10-31, establishing SB 375⁵³ regional targets for all MPOs in California. The SB 375 target set for SCAG is a 13 percent reduction in GHG emissions from automobiles and light duty truck exhausts by 2035 (compared to SCAG's

⁵³ Senate Bill 375 (SB 375, Steinberg, Statutes of 2008) enhances California's ability to reach its AB 32 goals by promoting good planning with the goal of more sustainable communities. SB 375 requires CARB to develop regional greenhouse gas emission reduction targets for passenger vehicles. CARB is to establish targets for 2020 and 2035 for each region covered by one of the State's 18 metropolitan planning organizations (MPOs). Each of California's MPOs then prepare a "sustainable communities strategy (SCS)" that demonstrates how the region will meet its greenhouse gas reduction target through integrated land use, housing and transportation planning. Once adopted by the MPO, the SCS will be incorporated into that region's federally enforceable regional transportation plan (RTP). CARB is also required to review each final SCS to determine whether it would, if implemented, achieve the greenhouse gas emission reduction target for its region. If the combination of measures in the SCS will not meet the region's target, the MPO must prepare a separate "alternative planning strategy (APS)" to meet the target. The APS is not a part of the RTP. SB 375 also establishes incentives to encourage implementation of the SCS and APS. Developers can get relief from certain environmental review requirements under the California Environmental Quality Act (CEQA) if their new residential and mixed-use projects are consistent with a region's SCS (or APS) that meets the target (see Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28.).

recommended target of 8 percent). As discussed above relative to AB 32 consistency, the Project implements reasonable and feasible measures to reduce GHG from stationary, mobile and indirect sources. The SB 375 targets, although they do not have binding regulatory effect upon the Project at this time, provide further context along with AB 32 targets noted above, relative to the Project's GHG impact. In an effort to further reduce transportation-related GHG, the applicant has agreed to an additional measure, GHG-3, to further reduce Project traffic generation and trip lengths by expanding the public transportation system throughout the project and providing alternative transportation options. Expansion of the public transportation system to serve the project site would facilitate ridership, thereby reducing individual automobile trips.

No single project would in fact hinder the ability of the State of California to achieve its desired GHG goals reflected in AB32 and SB375, considering that residential/commercial sources represent a small percentage of State, national and global GHG, with the vast majority of development-related emissions (such as energy consumption and transportation fuels) regulated by CARB, EPA, SCAQMD and agencies other than local municipalities such as the City of Banning.⁵⁴ One of the largest sources of global GHG, other than fossil fuel burning (from power plants and industrial sources) and transportation emissions, is deforestation, as this removes important "carbon sinks" from Earth's surface, resulting in greater CO₂ retained in the atmosphere. In this regard, the U.S. is a global leader in maintaining and creating carbon sequestering forests.⁵⁵ With particular respect to the Project, the site has no "forest lands" and minimal carbon sequestering value (consisting mostly of grasslands), and this would be replaced with a diverse urban landscape complete with extensive array of carbon sequestering trees throughout the estimated 1,460 acres of developed area. Emissions offsets due to carbon sequestering trees are conservatively not included in emissions inventory for the Project, and no credit or reduction was taken.

With implementation of project design features and mitigation measures, the Project would not obstruct or conflict with the statewide goals of AB32 and regional targets under SB375. However, because measures implementing AB32 and the SB375 require further action by other state and federal agencies and implementation and effectiveness is not assured, as well as the continuing effects of past human-induced GHG emissions, the Project's incremental contribution to climate change would remain potentially significant and unavoidable.

GHG-1 Prior to the issuance of building permits, the following measures shall be reflected on applicable tract maps, building permits, improvement plans, landscape plans and/or grading plans:

a) Green Building Practices

⁵⁴ <http://climatechangeinfo.org/> (accessed December 21, 2010).

⁵⁵ http://www.appinsys.com/GlobalWarming/GW_5GH_CO2Sources.htm (accessed December 21, 2010).

1) Water Conservation – All appliances such as showerheads, lavatory faucets and sink faucets shall comply with efficiency standards set forth in Title 20, California Administrative Code Section 1604(f). Title 24 of the California Administrative Code Section 1606(b) prohibits the installation of fixtures unless the manufacturer has certified to the California Energy Conservation compliance with the flow rate standards.

2) Water Conservation – Low-flush toilets shall be installed as specified in California State Health and Safety Code Section 17921.3 and the County Green Building Ordinance [as applicable in Riverside County].

3) Water Conservation – All common area irrigation areas shall be capable of being operated by a computerized irrigation system which includes an on-site weather station/ET gage capable of reading current weather data and making automatic adjustments to independent run times for each irrigation valve based on changes in temperature, solar radiation, relative humidity, rain and wind. In addition, the computerized irrigation system shall be equipped with flow sensing capabilities, thus automatically shutting down the irrigation system in the event of a mainline break or broken head. All common area irrigation controllers shall also include a rain-sensing automatic shutoff.

4) Water Conservation – Common-area landscaping shall emphasize drought-tolerant vegetation. Plants of similar water use shall be grouped to reduce over-irrigation of low-water-using plants. Those areas not designed with drought-tolerant vegetation shall be gauged to receive irrigation using the minimal requirements.

5) Water Conservation – Residential occupants shall be informed as to the benefits of low-water-using landscaping and sources of additional information related to water conservation.

6) Water Conservation – Community Center or Recreational Facilities with a pool amenity shall be conditioned to provide and use a pool cover to reduce water evaporation and retain heat.

7) Water Conservation – Water conservation standards shall be as noted in the Tier 1 measures of the 2010 California Green Building Standards.

8) Energy, Water, and Recycling

The builder shall be conditioned to provide the following:

- Energy efficient appliances;
- Energy efficient indoor lighting

- Water efficient smart controllers for landscaping
- Water efficient plumbing in all buildings
- Integrate recycling into residential home design. Create areas in the home to promote recycling (additional trash cans in cabinets, etc.)
- Energy Efficiency standards shall be as noted in the Tier 1 measures of the 2010 California Green Building Standards.

9) Carbon Sequestration – The builder shall plant an average of approximately 40 trees per landscaped acre (where landscaping is provided) as a means to capture (sequester) carbon dioxide emissions and to provide shade to the buildings, which can decrease the need for air conditioning.

10) Green Education Program - In order to increase awareness of green building practices and to promote water and energy conservation, the builder(s) will develop and implement a green educational program. The program will include but not necessarily be limited to a pamphlet that educates and promotes conservation practices that homeowners can implement, with specific guidance on landscaping with drought tolerant plants, use of efficient irrigation systems, compact florescent lighting, and other measures that help lower GHG emissions.

11) Energy Efficient Outdoor Lighting – Lighting for public streets, parking areas, and recreation areas shall utilize energy efficient light and mechanical, computerized or photo cell switching devices to reduce unnecessary energy usage.

12) Energy Conservation – Community Center or Recreational Facilities with a pool amenity shall be conditioned to install energy efficient pumps and motors, such as variable speed motors.

b) Solid Waste Measures

- 1) Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- 2) Shall comply with state model ordinance AB 1327, Chapter 18 California Solid Waste Reuse and Recycling Access Act of 1991, which requires interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.

c) Transportation and Motor Vehicles

- 1) Limit idling time for commercial vehicles, including delivery and construction vehicles, pursuant to applicable SCAQMD and City requirements.

- 2) Promote ride sharing programs (e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a web site or message board for coordinating rides). The actual percentage of potential ride sharing vehicle spaces will be determined in coordination with the City Planning Director or designee based on square footage and use type (e.g., shopping center, office, fitness center, etc.) prior to approval of a site plan within the commercial land use Planning Areas.
- 3) Provide adequate bicycle parking near non-residential building entrances to promote cyclist safety, security, and convenience. Provide facilities that encourage bicycle commuting (e.g., locked bicycle storage or covered or indoor bicycle parking).
- 4) All golf carts and Neighborhood Electric Vehicles (NEVs) shall be electrical powered only.

GHG-2 The Butterfield Specific Plan shall be conditioned to allow the following uses (as reflected on future tract maps and commercial site plans), to further promote renewable energy resources, including:

- a) Allowing rooftop solar on all structures, subject to City Municipal Code and related building permit provisions;
- b) Allowing electric vehicle charging stations at all commercial, park, golf course, multi-family residential, and school areas, subject to a Conditional Use Permit; and
- c) Allowing hydrogen vehicle fueling stations within the Commercial zone, subject to a Conditional Use Permit.

GHG-3 As part of future tract map, grading plan, site plan and/or improvement plan submittals, the applicant shall identify bus stop along arterial streets, through consultation with the City Engineer and Banning Pass Transit, including stops on Highland Springs Road, Wilson Street, Highland Home Road, and F Street as determined appropriate.

4.5.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Even with Project design features and mitigation measures for reducing GHG emissions, Project-related incremental contributions and cumulative development would cause GHG impacts to may remain significant and unavoidable, and could hinder the statewide GHG reduction goals of AB 32.

SECTION 4.6

CULTURAL RESOURCES

4.6.1 INTRODUCTION

The purpose of this section is to analyze potential Project-related impacts to paleontological, archaeological, and historic resources. Mitigation measures are recommended to minimize significant impacts that would occur as the result of Project implementation. Information and analysis in this section are based mainly on the *Cultural Resource Assessment and Historic Evaluations*, prepared by LSA Associates, Inc., April 12, 2006 and *Paleontological Resource Assessment*, prepared by LSA Associates, Inc., April 10, 2006. Additional investigations were completed by LSA Associates, Inc. for the proposed 21-acre addition to the Butterfield Ranch Specific Plan Area (*Cultural Resources Assessment – 21-acre Addition to the Butterfield Ranch Specific Plan*, December 19, 2007 and the *Paleontological Resources Assessment – 21-acre Addition to the Butterfield Specific Plan*, December 19, 2007), as well as for areas where off-site improvements will occur (*Cultural Resources Assessment – Butterfield Ranch Specific Plan Off-site Infrastructure*, December 11, 2007, and the *Paleontological Resources Assessment – Butterfield Ranch Specific Plan Off-site Infrastructure*, December 19, 2007). These documents are included in Appendix D, *Cultural Resources Assessment*. In addition, the Geotechnical Investigation and the Fault Rupture Hazard Investigation (2005) prepared by GeoCon, were referenced to establish the location of the Banning Fault relative to the Project site and grading plans and to determine the depth of Pleistocene deposits over the site. The GeoCon reports are included in Appendix E, *Geotechnical Reports*.

4.6.2 EXISTING CONDITIONS

4.6.2.1 ENVIRONMENTAL SETTING

Paleontological Resources

Paleontological resources are fossilized remnants of prehistoric plants or animals preserved in soil or rock layers over time. Fossils and trace fossils are typically preserved in sedimentary rock units, typically in fine-to-medium-grained marine lake and stream deposits such as limestone, sandstone, or shale, and in ancient soils (paleosols). Fossils are also typically found in coarse-grained sediments including coarse alluvium or conglomerates.

The Project site, lying between 2600 and 3400 feet elevation amsl (above mean sea level) falls into the Upper Sonoran Life Zone, which ranges from about sea level to an elevation of approximately 5,000 feet amsl. The parcel sits at the base of, and is separated from, the San Bernardino Mountains by the Banning Branch of the San Andreas Fault system (the “Banning Fault”), which traverses the northern portion of the Project site.¹

¹ Geocon Inland Empire, Inc., *Fault Rupture Hazard Investigation, Deutsch Property Highland Springs Avenue and Wilson Street, Banning, California*, November 9, 2005, Site Vicinity Map.

The Banning area contains sediments of Plio-Pleistocene² age referred to as the San Timoteo Formation. This is overlain by flat-lying, deeply weathered alluvium referred to as Pleistocene Old Alluvium and as late Pleistocene alluvium. The sedimentary record at the Project site represents at least three depositional events. These start with the deposition of the San Timoteo Formation, which occurs at depth on the Project site. Pleistocene Old Alluvium was then deposited in the area north of the Banning Fault and subsequently eroded to create the flat surface that contains late Pleistocene terrace deposits overlain by soil.

The paleontological literature search conducted by LSA indicates that there is potential for significant, non-renewable resources to be encountered in the course of construction excavation on the Project site. The Paleontological Resources Sensitivity Map of Riverside County indicates that paleontological sensitivity for sediments north of the fault where it traverses the Project site is high. Further review of the available literature led LSA to conclude that *all* subsurface Pleistocene sediments in the Banning-Beaumont area have a high potential to contain significant, non-renewable paleontological resources. As noted, such sediments, represented by silty sandstone are present on the site at depths ranging from approximately 12 feet in the site's higher elevations (between 3,070 and 2,905 feet amsl) to between 20 to 60 feet below ground surface in the site's lower elevations (between 2,800 and 2,575 feet amsl).³ Near-surface outcroppings of Pleistocene deposits were found north of the Banning Fault, at elevations 2,865 and 3,200+ feet amsl. Both the LSA literature review and its field survey support LSA's conclusion that there is potential for significant paleontological resources to occur in the late Pleistocene sediments on the Project site. This sensitivity encompasses older Pleistocene sediment north of the Banning Fault and younger Pleistocene deposits south of the Fault, although the depths at which these deposits are found would indicate that there is a greater likelihood of uncovering such fossil-bearing deposits in the site's higher elevations.

Archaeological Resources

Archaeological resources are defined as the material remains of any area's pre-historic (aboriginal/Native American) or historic (European and Euro-American) human activity in addition to the traditional cultural resources associated with archaeological sites and historic buildings and structures.

The Butterfield Specific Plan Project site is located within an area that encompasses a wide range of environments, which have been exploited by different indigenous groups over

² Plio-Pleistocene sediments are from the last two geologic "Epochs" preceding the Holocene Epoch. The Pleistocene Epoch occurred approximately 1.8 million years ago to 11,500 years ago, generally during the last period of repeated glaciation. This Epoch was followed by the Holocene Epoch, then modern time (<http://paleontology.wikia.com/wiki/Pleistocene>).

³ Geocon Inland Empire, Inc., *Geotechnical Investigation Deutsch Property, Highland Springs Avenue and Wilson Street, Banning, California, Appendix B – Boring and Trenching Logs*, June 29, 2005.

thousands of years. The most recently identifiable native culture to evolve in the Coachella Valley region is the Cahuilla.

The Cahuilla were a Takic-speaking, hunting and gathering people from the Great Basin region of Nevada, Utah and eastern California whose migration into southern California occurred sometime between 1000 BC and AD 500. The Cahuilla are generally divided into three groups by anthropologists: the Pass Cahuilla of the Banning-Beaumont area; the Mountain Cahuilla from the Santa Rosa and San Jacinto Mountains; and the Desert Cahuilla from the eastern Coachella Valley, as far east as today's Salton Sea. The Cahuilla lived in permanent villages, though they also occupied seasonal camps where they came to hunt to gather acorns. The Western Cahuilla had villages at Banning, among other locations in and around the San Gorgonio Pass area and the western Coachella Valley. An ethnographic habitation site was established to the southeast of the proposed Project area (CA-RIV-57). This site included slicks, bedrock mortars, a midden, pictographs, and a small rock shelter.

A record search conducted by LSA Associates identified 12 previously completed cultural resource studies within one mile of the Project site. These surveys recorded a total of 10 archaeological sites and nine built environment cultural resources; however, the records search did not identify previously recorded resources within the Project site. In addition to the records search, LSA Associates conducted an intensive field survey in the course of which three historic sites were identified; however, the field survey did not identify any prehistoric archaeological sites. LSA Associates also conducted a consultation with the Native American Heritage Commission (NAHC). The Native American groups that responded to the consultation did not identify any known resources. However, three of the Native American groups who did respond recommended Native American monitoring during site disturbance activities.

Historic Resources

Historic resources generally consist of buildings, structures, improvements, and remnants associated with a significant historic event or person(s) and/or have a historically significant style, design, or achievement. In general, resources greater than 50 years old have the potential to be considered a historic resource.

The "historic period" of California generally includes the Spanish, Rancho, and American Periods. The Spanish Period began with the establishment of Spanish Colonial military outposts. The Project site occupies land that, during the Spanish era, was administered by Mission San Gabriel Archangel. The Franciscan fathers who established the Mission set up outlying estancias (ranchos) to supply the Mission with food. Among these was the San Gorgonio Rancho, established in 1823 at the highest point in the Pass, along the foothills northwest of Banning. Because of its distance from the Mission, it was strictly used for grazing livestock.

The San Gorgonio estancia was abandoned following the passage of the Decree of Secularization in 1834. The years that followed were marked by a proliferation of cattle ranching throughout the region. Due to the natural flow of water from the various canyons, all of the ranchos in the Pass area were located on the north hills of the Pass. In 1845, Colonel Isaac William, Wallace Woodruff, and Paulino Weaver petitioned Governor Pio Pico for a grant to the land of the San Gorgonio Rancho. The Rancho consisted of approximately 11 leagues⁴ of land, including the proposed Project site, and included territory now occupied by Banning and Beaumont.

In 1853, a Dr. Isaac Smith acquired a portion of the San Gorgonio Rancho. Prior to Smith's arrival, routes through the San Gorgonio Pass were poorly maintained and dangerous. The construction of a new road through the Pass was authorized by the San Bernardino Board of Supervisors. The "Bradshaw Road" was constructed to pass through Dr. Smith's property. It crossed the proposed Project site in Section 36, Township 2 South, Range 1 West. By 1892, the lands of the original Smith Ranch were divided and sold off. A.H. Judson bought Sections 25 and 36, part of which comprise the northern half of the Project site. This property became known as Highland Acres and has since been used for cattle grazing.

A field survey of the Project site and adjacent off-site Project areas was conducted by LSA Associates on March 1-10, 2006. LSA was not able to identify any remains of the historic Bradshaw Road on the Project site. The field survey did, however, identify three previously undocumented historic sites and four isolated historic artifacts. LSA documented the resources and assigned temporary site numbers LSA-PDH0601-H1-1, H-2, H-3 for the historic sites, and LSA-PDH0601-I-1, I-2, I-3, and I-4 for the isolates.⁵ These resources are described briefly below:

LSA-PDH0601-H-1. This resource is a channelized ditch widened out of the intermittent Smith Creek for water conveyance purposes. Within the Project area, the ditch runs approximately two miles from north to south and forms a confluence with an unnamed ditch from the northeast near the southern section boundary. The ditch continues south, and exits the Project area as a culvert under Wilson Street. The ditch appears to have been the central feature of a historic conveyance system used to drain the property and to provide water for livestock.

The presence of the ditch appears at least as early as 1943 (USGS 1943). The integrity of the ditch is considered fair and it is considered to be in good condition, as it still operates somewhat effectively. Its sole diagnostic feature (lap-riveted steel pipe) has been documented, and no other diagnostic features were observed. Since LSA was unable to find substantial evidence that would support a finding of significance for the Smith Creek ditch, LSA determined that the ditch did not meet the criteria of the National or California Register(s); the site's data potential is therefore considered exhausted.

⁴ A "league" is a measure of length (and rarely area) approximating the distance a person can walk in an hour, or roughly two miles.

⁵ Cultural Resource Assessment and Historic Evaluations, LSA Associates, 2006.

LSA-PDH0601-H-2. This resource is located on the edge of an on-site ravine and is a refuse deposit. Items identified within the deposit are of both modern and historic periods and included a rusted/corroded horse-drawn wagon leaf spring (ca. late 19th century) and a General Electric clothes washing machine, Model 1288 (ca. 1920s). The site is considered to be of poor integrity and condition, due to the character of historic and modern items found in the deposit; however, LSA determined that there remains a minimal data potential within the refuse scatter and has recommended mitigation measures.

LSA-PDH0601-H-3. This resource consists of a historic transmission corridor, including steel towers, transmission lines, and a dirt access road. The corridor is the southernmost of three adjacent transmission alignments. Review of aerial photographs suggests that the towers were constructed between 1943 and 1953 (USGS Beaumont 7.5 quadrangle). The alignment appears to be in operating condition, retains its original historic design and use, and appears to remain in its original position. The resource meets the age requirement sufficient for National and California Register consideration and exhibits good integrity, but because the resource only contains a small segment within the current Project, it is deemed not eligible for the National or California Registers.

LSA-PDH0601-I-1. Isolate 1 consists of a pile of rocks mortared together with concrete. The isolate is of unknown association, context, or age.

LSA-PDH0601-I-2. Isolate 2 is a small section of a rusted steel drum. The location, stage of decay, and lack of notable diagnostic features make it difficult to determine its age.

LSA-PDH0601-I-3. Isolate 3 is represented by a small section of corrugated steel pipe, the type of which was popular from the 1940s to present day. It is uncertain as to whether the pipe is of historic age; however, the pipe has no integrity as a resource.

LSA-PDH0601-I-4. Isolate 4 is represented by a small aqua piece of glass (approximately 1" x ½" x 1/16"). The glass appears to be historic, however, the sample is small and its context uncertain, and therefore, it has no integrity as a resource.

Off-Site Paleontological Resources

The paleontological setting for the off-site improvements is generally the same as that described above for the Project site. Over 50 locations where paleontological resources have been identified exist to the south and southwest of the Project area, within the San Timoteo and the Mount Eden formations. Younger sediments of the Late Pleistocene age deposited in the Project area are expected to support fossils as well.

Portions of the areas where off-site infrastructure improvements are proposed have the potential to yield significant, non-renewable paleontological resources. The field survey and

literature review determined that there exists a high potential for significant paleontological resources to occur within the Pleistocene sediments along the northwest portions of the off-site infrastructure alignments. The potential for such resources to occur is highest within the Pleistocene alluvial deposits along Noble Street and High Street west of Jonathan Avenue and north of Brookside Avenue.

Off-Site Archaeological Resources

The archaeological setting for the off-site improvements is the same as for the proposed Project. Literature review indicated that over 30 surveys for cultural resources have been conducted within one mile of the site. These surveys have resulted in the identification of 24 archaeological sites and 119 built environment resources. One recent survey (RI-7054, Hogan and Tang, 2007) was conducted in the northwest portion of the area where off-site improvements will occur along Noble Street, Cherry Avenue and Brookside Avenue. The study determined that no additional study for historic or archaeological resources in this area was required given the existing paved condition of the roadways.

A cultural resources record search and field (windshield) survey were conducted by LSA in October and November 2007, respectively, for the areas where off-site improvements are proposed. The majority of improvements will occur within paved roadways. As these areas have been previously disturbed they do not have a high potential to support significant resources.

Off-Site Historical Resources

The historical setting for the off-site improvements is the same as for the proposed Project. The records search performed for the off-site improvements identified 39 historic structures that were located along the north and south sides of Lincoln Street between Sunset and San Geronio Avenues, where off-site improvements would be constructed. Visual inspection of the area, however, provided little evidence that these structures survive in proximity to the street right-of-way, which is being improved with new industrial, office, and residential development. Structures that may be of historic age can be viewed from at a distance from Lincoln Street, but are not accessible from Lincoln Street.

4.6.2.2 REGULATORY FRAMEWORK

National Register of Historic Places

The National Historic Preservation Act (NHPA), originally adopted in 1966, provides the most comprehensive national policy with regards to historic preservation. The Act is designed to encourage the preservation and wise use of historic resources within the U.S and establishes the policy of the U.S. Government regarding historic preservation. The Act is intended to

“coordinate and support public and private efforts to identify, evaluate, and protect...historic and archaeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.”⁶

Eligibility for listing in the National Register is evaluated for a particular historic resource by applying four basic criteria. The criteria generally require that the resource be at least 50 years of age and of significance at the local, State, or national level, according to one or more of the following:

- A. It is associated with events that have made a significant contribution to the broad patterns of local or regional history;
- B. It is associated with the lives of persons significant in our past;
- C. It embodies the distinctive characteristic of a type, period, region, or method or construction, or represents the work of an important creative individual, or possesses high artistic values, or that represent a significant and distinguishable entity whose components lack individual distinction; and/or,
- D. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Eligibility for listing on the National Register requires that a resource possess integrity, or the ability of a property to convey its significance. Location, design, setting, materials, workmanship, feeling and association can influence a site’s integrity. The particular National Register criterion under which the resource is considered eligible for listing are considered in determining which of these factors applies.

California Register of Historic Resources

Criteria for eligibility listing on the California Register are based on the National Register criteria, with modifications made to apply to resources within the State of California. For a property to be eligible for inclusion on the California Register, one or more of the following criteria must be met⁷:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

⁶ National Park Service – National Register of Historic Places. <http://www.nps.gov/nr/about.htm> Accessed January 2007.

⁷ California State Parks - Office of Historic Preservation. http://ohp.parks.ca.gov/default.asp?page_id=21238 Accessed January 2007.

2. It is associated with the lives of persons important to local, California, or national history;
3. It embodies the distinctive characteristics of a type, period, region, or method or construction, or represents the work of a master, or possesses high artistic values; and/or,
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

City of Banning General Plan and EIR – Goals, Policies and Programs

The City of Banning's General Plan contains the City's historical preservation goals and policies which include the documentation, maintenance, preservation, conservation, and enhancement of archaeological and historic sites, artifacts, traditions, and other elements of the City's cultural heritage.

Policy 1: The City shall exercise its responsibility to identify, document and evaluate archaeological, historical and cultural resources that may be affected by proposed development projects and other activities (see 17.24.070 of the City's Municipal Code).

Program 1.A: All new development proposals, except single family dwelling on existing lots of record, shall submit a records search for historic and cultural resources as part of the planning process (see 17.24.070 of the City's Municipal Code).

Program 1B: Development or land use proposals which have the potential to disturb or destroy sensitive cultural resources shall be evaluated by a qualified professional and, if necessary, comprehensive Phase I studies and appropriate mitigation measures shall be incorporated into project approvals (see 17.24.070 of the City's Municipal Code).

Program 1.C: The City shall implement the requirements of State law relating to cultural resources, including Government Code 65352.3, and any subsequent amendments or additions (see 17.24.070 of the City's Municipal Code).

Policy 2: The City shall expand and enhance its historic preservation efforts.

Program 2.C: Encourage property owners and residents to nominate qualified properties to the City's inventory system and/or any federal and State registers.

Policy 3: Establish and maintain a confidential inventory of archaeological and historical resources within the City, including those identified by the Eastern

Information Center (EIC) at the University of California, Riverside and in focused cultural resources studies.

Policy 4: Sensitive archaeological and historic resources shall be protected from vandalism and illegal collection, to the greatest extent possible.

Program 4.A: Mapping and similar information, which identifies specific locations of sensitive cultural resources, shall be maintained in a confidential manner, and access to such information shall be provided only to those with appropriate professional or organizational ties.

Policy 5: Encourage public participation in and appreciation of the City's cultural heritage.

Program 5.B: Support the efforts of local cultural associations to acquire historical materials and artifacts, and to educate the public about the City's and region's cultural heritage.

Policy 6: Support the listing of eligible structures of sites as potential historic landmarks and their inclusion in the National Register of Historic Places.

City of Banning General Plan EIR Mitigation Measures

Cultural Resources Mitigation Measure A

All development or land use proposals, which have the potential to disturb or destroy sensitive cultural resources, shall be evaluated by a qualified professional and, if necessary, comprehensive Phase I studies and appropriate mitigation measures shall be incorporated into project approvals (Cultural Resources Mitigation Measure A).

Cultural Resources Mitigation Measure B

In the event that archaeological resources are unexpectedly discovered during construction, the City shall require that development cease, and a professional archaeologist shall be employed to examine and document the site to determine subsequent activities and appropriate mitigation measures (Cultural Resources Mitigation Measure G).

City of Banning Code of Ordinances – Chapter 17.24.070

Chapter 17.24.070 - Environmental resources/constraints. All development proposals shall be reviewed for compliance with the California Environmental Quality Act (CEQA). If the proposal is determine to qualify as a 'project' under CEQA, the project proponent may be required to submit specialized studies to determine the effect on specific resources and hazards, including but not limited to biological resources, *cultural resources*, geotechnical hazards,

hydrology, noise, and traffic. No project shall be approved without first satisfying the requirements of CEQA.

4.6.3 SIGNIFICANCE THRESHOLD CRITERIA

The criteria given in the Initial Study checklist in Appendix G of the State CEQA Guidelines were used to evaluate potentially significant impacts on cultural resources that could occur as a result of Project implementation. The Project would result in significant impact related to cultural resources if it would:

- a) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.
- b) Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5.
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- d) Disturb any human remains, including those interred outside of formal cemeteries.

4.6.4 IMPACT ANALYSIS AND MITIGATION MEASURES

ANALYTIC METHOD

The previously certified Deutsch Specific Plan EIR addressed development of the Project site with up to 5,400 dwelling units. Impacts discussed below are generally consistent with the impacts described in the 1985 Deutsch Specific Plan EIR and subsequent EIR Update in 1993. This analysis has been updated to reflect the currently proposed Butterfield Specific Plan, including the off-site infrastructure and 21-acre unincorporated parcel. The Project site will be mass graded in approximately four phases, beginning with the golf course, Smith Creek drainage improvements and fill placement in the southerly portion of the site. Concurrent with the initial phase of mass grading, applicable portions of off-site infrastructure and both on- and off-site drainage improvements will be constructed. The EIR analysis is based on review of available documents, including the proposed Specific Plan and associated tract maps, as well as Project-specific technical studies contained in Appendix D, *Cultural Resources Assessment*

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing local, State and federal regulations noted in Section 4.6.2.2, *Regulatory Framework* will avoid or mitigate potential cultural resource impacts. The following Project Design Features will also reduce, avoid or off-set potentially adverse cultural resource impacts:

- 1) The Project has been redesigned from the previously approved Deutsch Specific Plan, which proposed grading the entire Specific Plan property. As such, the preservation of the northeastern portion of the site in permanent open space will reduce the potential for disturbance of previously unidentified paleontological and archaeological resources.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.6-1: Paleontological Resources

Threshold: *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Determination: *Less than Significant with Mitigation Incorporated*

On-Site Construction and Operation

As much of the Project site is underlain by sediments that have the potential to support significant, non-renewable paleontological resources, site development activities, especially those associated with site grading and trenching for underground infrastructure in those portions of the site at elevations in excess of 2,600 feet amsl, have the potential to result in significant impacts to such resources. To reduce the potential for adverse impacts on paleontological resources as a result of on and off-site grading and excavation activities, Mitigation Measure CUL-1 is proposed. This mitigation measure would require preparation of a paleontological resource impact mitigation program (PRIMP) for the grading and excavation phases of the Project, in order to reduce potential impacts to unknown paleontological resources to a less than significant level. The PRIMP would require monitoring of excavation activities by a qualified paleontologist when the activity takes place within areas of known Pleistocene sediments. The PRIMP would include monitoring, salvage, processing, and collection of discovered resources (at a minimum and as appropriate), with findings of the evaluation submitted to the City of Banning.

Off-Site Infrastructure

The initial phase of Project development (Phase IA) and subsequent phases will include trenching and installation of off-site infrastructure improvements consisting primarily of drainage improvements and underground pipeline. These off-site improvements may occur in areas underlain by Pleistocene sediments having potential to support paleontological resources similar to those that could be unearthed on-site. This impact would be significant without mitigation; however, implementation of Mitigation Measure CUL-1 would reduce this impact to a less than significant level, as discussed above.

Mitigation Measures

The following mitigation measure will reduce potentially significant impacts to non-renewable paleontological resources to a less than significant level. Potential adverse Project effects are also “mitigated” through the various existing regulations and ordinances noted above. In addition, the Project has reduced, avoided or offset potentially adverse impacts to cultural resources through Project Design Features noted above (all of which are summarized in Section 3.8, *Project Design Features*):

CUL - 1: The Project Applicant shall prepare a paleontological resource impact mitigation program (PRIMP) for the grading and excavation phase of the Project, including both on- and off-site activities. The PRIMP shall be submitted for review and approval prior to issuance of any grading permit, and shall conform to the guidelines of the County of Riverside and the Society of Vertebrate Paleontology; including the following:

- A trained paleontological monitor shall be present during initial mass grading or deep trenching activities within the Project in sediment areas determined likely to contain paleontological resources. If paleontological resources are located within excavation, the monitoring program will change to full-time. The monitor shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts to paleontological resources. The monitor shall be equipped to rapidly remove any large fossil specimens encountered during excavation. During monitoring, samples shall be collected and processed to recover microvertebrate fossils. Processing shall include wet screen washing and microscopic examination of the residual materials to identify small vertebrate remains.
- Upon encountering a large deposit of bone, salvage of all bone in the area shall be conducted with additional field staff and in accordance with modern paleontological techniques.
- All fossils collected during the Project shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of all material collected and identified shall be provided to the museum repository along with the specimens.
- A report documenting the results of the monitoring and salvage activities and the significance of the fossils will be prepared. All fossils collected during this work, along with the itemized inventory of these specimens,

shall be deposited in a museum repository for permanent curation and storage.

- All fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository for permanent curation and storage.

With implementation of Mitigation Measure CUL-1, impacts on paleontological resources would be reduced to a less than significant level.

Impact 4.6-2: Archaeological Resources

Threshold: *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?*

Determination: *Less than Significant with Mitigation Incorporated*

On-Site Construction and Operation

Archaeological sites are locations that support significant resources associated with former human activities, and may support such resources as human skeletal remains, waste from tool manufacture, tool concentrations, and/or discoloration or accumulation of soil or food remains. Construction activities associated with implementation of the proposed Project may result in adverse effects on known or currently unknown archaeological sites. According to the City of Banning General Plan Archaeological Resources Sensitivity Map, the Project is located in an area considered to have low sensitivity for archaeological resources.⁸ While no previously recorded cultural sites exist within the Project boundaries, 10 archaeological sites and nine built environment cultural resources have been identified within one mile of the Project area. Based upon the findings of the field survey and record searches, potentially significant impacts to undiscovered cultural resources could occur as site improvement activities such as grading and excavation take place.

Most of the Project site will be disturbed by grading activities required for implementation of the Specific Plan. Accordingly, Mitigation Measures CUL-2 and CUL-3 will be required. These mitigation measures require the presence of a qualified archaeological monitor on-site during the initial mass grading phases of the Project, as well as during deep trench excavations, to assess the significance of resources, including human remains that may be discovered during such activities.

⁸ City of General Plan EIR, 2005.

Mitigation Measures

The following mitigation measure will reduce potentially significant impacts to archaeological resources to a less than significant level. Potential adverse Project effects are also reduced through compliance with the various existing regulations and ordinances noted above. In addition, the Project has reduced, avoided or offset potentially adverse impacts to cultural resources through Project Design Features noted above, all of which are summarized in Section 3.8, *Project Design Feature*:

- CUL-2:** Prior to the issuance of a grading permit, an archaeological resource monitoring plan shall be developed by a qualified archaeologist. This plan shall include a grading observation schedule, to be maintained when initial mass grading occurs in upper soils, to identify and further evaluate any cultural resources that may be discovered in the Project area. A qualified archaeologist shall be retained to attend pre-grading meetings and to monitor earth moving activities, including clearing, grubbing, cutting, and trenching at the site. The archaeologist shall carefully inspect these areas to assess the potential for significant prehistoric or historic remains. If potential archaeological and historical resources are uncovered, the construction contractor shall cease grading operations in the vicinity of the find until further evaluation is undertaken to assess the discovery. Further subsurface investigation may be needed if the resource is determined unique or important for its prehistoric or historic information.
- CUL-3:** All earthmoving activity occurring within 30 meters of the on-site refuse scatter (LSA-PDH0601-H-2) shall be monitored by a qualified archaeologist. If archaeological remnants are discovered during monitoring, the archaeologist shall have the authority to divert construction in order to assess the significance of the find. Remnants shall be properly evaluated, documented, and deposited as applicable, consistent with State and local protocols.

With implementation of Mitigation Measures CUL-2 and CUL-3, potential impacts to archaeological resources as the result of Project implementation would be reduced to a less than significant level.

Off-Site Infrastructure

No known archaeological resources exist within the area impacted by off-site improvements. Mitigation Measures CUL-2 and CUL-3 requires the presence of a qualified archaeological monitor during any excavation activity to assess the significance of any unknown cultural resources that may be uncovered. With implementation of Mitigation Measures CUL-2 and CUL-3, impacts to archaeological resources as the result of off-site infrastructure improvements will be reduced to a less than significant level.

Impact 4.6-3: Historical Resources

Threshold: *Would the project cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5?*

Determination: *Less than Significant with Mitigation Incorporated*

On-Site Construction and Operation

Historic resources are typically places or structures of historic importance, and are non-renewable resources that are protected by federal, State or local laws, ordinances, or guidelines if they meet specific criteria. Damage to, or demolition of, such resources is typically considered to be a significant impact pursuant to Section 15064.5 of the *CEQA Guidelines*. Impacts to historic resources can be direct, as when a resource is destroyed or moved as a result of a Project, or indirect, as a result of a Project-induced change in the setting of a historic resource.

The Project site is located approximately a quarter of a mile from the historic Highland Springs Resort. Other potential historic resources that have been identified on historic maps for the area include an electrical transmission corridor improved with transmission towers and an access road, as well as a buried pipeline, no longer in use (USGS 1953). A portion of the historic Bradshaw Road traversed the northern portion of the site; however, no trace of the road was uncovered in the course of a field survey of the site by LSA (2005). A search of the National, State and Local Registers of Historic Resources found no historical resources listed within the Project site or improvement areas per PRC § 21084.1.

According to a review of the available literature, 12 cultural resources surveys have been conducted within one mile of the Project area, resulting in the recordation of nine built environment cultural resources. During the field survey of the Project site, LSA archaeologists identified and documented three historic-era sites and four isolated historic era artifacts. Three of these previously undocumented resources were evaluated for eligibility for National and California Register listing. These sites include a historic-era water conveyance system and associated features, a historic-era refuse deposit, and a segment of a historic-era transmission corridor. As indicated below, the analysis determined that none of the resources meet the required criteria for listing in either the National Register or the California Register. Accordingly, none is considered a historical resource pursuant to CEQA or the NHPA.

LSA determined that the refuse scatter (LSA-PDH0601-H-2) had at least minimal data potential. Land disturbance activities required for implementation of the Specific Plan will disturb the site and could result in significant impacts to any potential resource not yet identified. Accordingly, Mitigation Measure CUL-3 requires that all earthmoving activities occurring within 30 meters of this potential resource shall be monitored by a qualified archaeologist. If historic remnants are discovered during ground disturbing activities, the archaeologist shall have the authority to

halt or divert grading to allow for the assessment of the discovered resource. Implementation of Mitigation Measure CUL-3 will reduce potential impacts to this potentially historic resource to a less than significant level.

Off-Site Infrastructure

The records search performed for the proposed off-site improvements identified 39 historic structures that were located along north and south sides of Lincoln Street, between Sunset and San Geronio Avenues, having frontage on the public right-of-way within which off-site improvements are proposed to be constructed. However, a field investigation found little evidence of potentially historic resources in proximity to the right-of-way where new construction of offices, industrial buildings and residential subdivisions now occupy significant stretches of the road, or where land has been cleared for potential new construction. One hundred nineteen (119) historic buildings have been identified within a one-mile radius of the Project site by previous surveys; however, these previously identified structures would not be significantly impacted by the proposed off-site infrastructure improvements, and no further study is required. As a result, impacts to historic-era structures resulting from the construction of off-site infrastructure are considered less than significant.

Impact 4.6-4: Human Remains

Threshold: *Would the project result in the disturbance of any human remains, including those interred outside of formal cemeteries?*

On-Site Construction and Operation

No known formal gravesites have been identified within the Project area; however, due to the known prehistoric use and habitation of the area and the identification of archaeological resources in the vicinity of the Project site, the possibility that human remains could be encountered during grading, trenching, or other earth-moving activities as a result of Project implementation does exist. Any disturbance of human remains as the result of the Project would be considered a significant adverse impact. Mitigation Measure CUL-2 requires an archaeological monitor on-site during grading activities and Mitigation Measure CUL-4 requires compliance with all applicable State and federal regulations concerning preservation, salvage, or handling of human remains that could be uncovered as a result of grading and excavation.

Mitigation Measures

The following mitigation measure will reduce potentially significant impacts to less than significant levels. Potential adverse Project effects are also “mitigated” through the various existing regulations and ordinances noted above. In addition, the Project has reduced, avoided

or offset potentially adverse impacts to cultural resources through Project Design Features noted above (all of which are summarized in Section 3.7, *Project Design Features*):

CUL-4: If previously unknown cultural resources, including human remains, are identified during grading activities, a qualified archaeologist shall be retained to assess the nature and significance of the find. If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner shall be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Implementation of applicable State laws, existing State and federal standards and policies and Mitigation Measures CUL-2 and CUL-4 would ensure that human remains are not damaged if unearthed within the Project area, and that any such remains would be handled appropriately. With implementation of Mitigation Measures CUL-2 and CUL-4, impacts on human remains as the result of Project implementation would be reduced to a less than significant level.

Off-Site Infrastructure

Cultural resources identified through the record search and field survey of off-site areas did not contain evidence of human remains. No known cemeteries are located in proximity to the areas where the off-site improvements are proposed. However, as these improvements will require excavation and trenching activities to allow for construction of underground pipeline, and as land disturbance for drainage improvements will occur, the potential for human remains to be uncovered does exist. Mitigation Measure CUL-2 requires monitoring of all off-site land disturbance activities by a qualified archaeological monitor. Mitigation Measure CUL-4 requires compliance with all applicable State and federal regulations concerning preservation, salvage, or handling of human remains should those be uncovered. Compliance with these regulations and with implementation of Mitigation Measures CUL-2 and CUL-4, potential impacts to human remains as the result of off-site improvements would be reduced to a less than significant level.

4.6.5 CUMULATIVE IMPACTS

Determination: Less than Significant with Mitigation Incorporated

The geographic setting for the analysis of cumulative impacts is the San Gorgonio Pass region of Riverside County. As noted in Section 4.6.2 (Existing Conditions – Environmental Setting) *all* subsurface Pleistocene sediments in the San Gorgonio Pass area have a high potential to contain significant, nonrenewable paleontological resources.

In terms of cultural resources, the proposed Project is located in an area that encompasses a wide range of environments, which have been exploited by different indigenous groups over thousands of years, the most recently identifiable culture being the Cahuilla. Surveys performed by the U.S. Government Land Office (GLO) in the mid-1850s noted a large number of Native American villages, or rancherias, in the general region. All or most of these settlements are believed to have been settlements of the Desert or Pass Cahuilla people. One such settlement is known to have been located within the current municipal boundaries of the City of Banning, though not within the Project site. The first European settlements in the Banning/Beaumont area date to the early 1800's. Accordingly, the San Gorgonio Pass area has the potential to contain significant numbers of paleontological, archaeological, and historic resources.

The City's General Plan contains a number of policies and programs intended to protect and where possible preserve these resources. These are cited in Section 4.6.3 (Regulatory Setting) of this analysis. The General Plan EIR includes mitigation measures to address potential impacts to the area's cultural and paleontological resources and concludes that, with the implementation of the General Plan's policies and programs, together with the implementation of the General Plan EIR's mitigation measures, implementation of the General Plan would not make a cumulatively considerable contribution to any cumulative impacts associated with regional cultural and paleontological resources.

As discussed in Section 4.10, *Land Use and Planning*, the Butterfield Specific Plan is generally consistent with the City's General Plan, and is an amendment and restatement of the previously approved Deutsch Specific Plan. Additionally, extensive field investigation of the Project site and off-site areas potentially impacted by the Project, together with literature reviews, have detected no archaeological or historical resources of any significant value on site, and no off-site resources that would be impacted by the development of the proposed Project. Mitigation Measures CUL-1 through CUL-4 further limit the Project's potential to contribute significantly to any cumulative paleontological, archaeological, or historical resource impacts on a regional level.

Individual development projects undertaken in the region could, depending upon site conditions, constitute an incremental adverse impact on the region's cultural resources.

However, since the proposed Project conforms to the City's General Plan, is subject to the goals, policies and programs contained therein, is further subject to the mitigation measures contained in the General Plan EIR, and is also subject to Project Mitigation Measures CUL-1 through CUL-4, implementation of the Project would not make a cumulatively considerable contribution to regional cumulative impacts on cultural resources and would therefore be cumulatively less-than-significant.

4.6.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

After mitigation, implementation of the proposed Project would result in less than significant impacts on paleontological, archaeological, and historic resources.

SECTION 4.7

GEOLOGY, SOILS AND SEISMICITY

4.7.1 INTRODUCTION

The purpose of this section is to describe the geologic, seismic and slope stability setting of the Project area, identify significant development constraints, and recommend mitigation measures to ensure geotechnically sound and stable approaches to grading, drainage, and building construction. Information in this section is taken from the 2005 *Geotechnical Investigation: Deutsch Property, Highland Springs Avenue and Wilson Street, Banning, California* prepared for Pardee Homes by Geocon Inland Empire, Inc. (Geocon) and the 2005 *Fault Rupture Hazard Investigation: Deutsch Property, Highland Springs Avenue and Wilson Street, Banning, California* prepared for Pardee Homes by Geocon. Additional reports were also prepared to evaluate the approximately 21-acre parcel to be included as part of the Specific Plan Area PA43B in the northwest site corner (*Scoping Study*, prepared by Geocon dated May 5, 2006) and the proposed off-site improvements (*Limited Geotechnical Observation: Proposed Off-site Sewer, Water, and Recycled Water Improvements Associated with Butterfield Property*, prepared by Geocon and dated December 11, 2007). These reports can be found in Appendix E, *Geotechnical Reports*. Additional information was provided in the *City of Banning General Plan* (January 2006), the *City of Banning General Plan EIR* (June 2005), the *City of Banning Municipal Code*, and other sources listed in the Bibliography.

4.7.2 EXISTING CONDITIONS

4.7.2.1 ENVIRONMENTAL SETTING

Regional Geologic and Seismic Setting

The City of Banning, like the rest of southern California, is located within a seismically active region near the active margin between the North American and Pacific tectonic plates. Most of the City of Banning lies within the Transverse Ranges geomorphic province, while the southern edge of the Banning area is located within the Peninsular Ranges geomorphic province, with the San Gorgonio Pass generally defining the boundary between the two regions. The San Gorgonio Pass is a down-thrown block between two faults (rock fractures) as a result of the relative right-lateral motion between the North American and Pacific tectonic plates. The valley floor is generally characterized as a series of alluvial fans comprised of sediments originating primarily from the San Bernardino Mountains.

The Project site is located in the San Gorgonio Pass fault zone (SGPFZ), which exists as an area of compression resulting from a left step in the San Andreas fault zone from the Coachella Valley segment (southeast) to the San Bernardino strand (northwest). An estimated 1.9 miles of right lateral displacement has occurred within the SGPFZ since its inception during the Quaternary period. For the SGPFZ in the Project area, the annual Quaternary slip rate is estimated to be 0.9 to 1.6 millimeters (mm) or approximately 0.035 to 0.06 inches.

The principal source of seismic activity in the area is movement along the northwest-trending regional faults such as the San Andres, San Jacinto, and Elsinore fault zones. These fault systems are estimated to produce approximately 55 millimeters (2.17 inches) of slip per year between the plates.

Sudden movement along these faults results in earthquakes. The Banning fault is the dominant fault in the immediate Project area, extending from the Indio Hills approximately 100 km (62 miles) to the San Andreas fault. The Banning fault zone consists of western, central, and eastern segments. Other faults in proximity to the Project site include the San Bernardino strand of the San Andreas fault, located 4 miles to the north; the Mission Creek fault, located 7.2 miles to the northeast; the Mill Creek fault, located 8 miles to the north; the San Jacinto fault, located 10 miles to the southwest; the Coachella Valley segment of the Banning fault, located 12 miles to the east; and the Coachella Valley segment of the San Andreas fault, located approximately 20 miles northeast of the Project site; refer to Exhibit 4.7-1, *Regional Fault Zones*.

PROJECT SOILS, TOPOGRAPHY, AND GROUNDWATER CONDITIONS

Topography

The elevation of the Project site varies from over 3,400 feet above mean sea level (amsl) in the northeastern portion to 2,560 feet amsl in the southeastern portion of the site. Its topography ranges from relatively flat to steeply sloping. The majority of the site slopes gently from north to south, with the steepest area located in its northeastern-most portion; refer to Exhibit 4.7-2, *Topographic Map*.

Groundwater

On-site borings performed by Geocon (2005) descended to a depth of approximately 65 feet beneath ground surface (bgs). No groundwater was encountered in any boring. Prior measurements of depth to groundwater on-site ranged from approximately 367 feet bgs in 1998 to over 550 feet bgs in 2005. Presently, depth to groundwater on the Project site is estimated to be greater than 300 feet bgs.

On-Site Soils

Soils encountered during Geocon's field investigation of the Project site include surficial units of undocumented fill, modern soil, slope wash, colluvium, recent and older alluvium, and Pleistocene conglomerate; refer to Exhibit 4.7-3, *Soils Map* and the description of on-site soils that follows. Landslide deposits and relatively shallow debris flow deposits were observed along the noses of several ridges in the northern area of the site. The Pleistocene conglomerate was the oldest unit encountered during the geotechnical investigation and formed the hills in the northern portion of the site. Depths to these ancient deposits range from 2 feet to over 60

feet bgs, depending upon surface elevation. The 21-acre added parcel and the off-site area are assumed to have a soils and geotechnical profile similar to that described for the adjacent portion of the Project site, given the surficial similarities.

Undocumented Fill (Qudf)

Undocumented fill occurs on-site and consists of locally derived silty sands that are generally loose to medium dense and dry to moist. The fill deposits occur as generally east-west trending berms, approximately three to five feet in height. These berms were originally constructed to minimize the potential for on-site erosion. The existing fill material may be reused as fill material within the proposed Project.

Modern Soil (Qm)

Modern soils occur on-site within the upper six to 24 inches and are estimated to be between 100 to 1,000 years old. On-site, this soil type is loose, dry, olive brown silty coarse sand with horizontal parting surfaces.

Slope Wash (Qsw)

Slope wash was identified on-site and is described as a loose to medium dense, damp, dark yellow brown silty sand with trace gravel. The slope wash was observed to be generally porous.

Colluvium (Qcol)

Colluvium was identified along the hillsides and slopes on-site and generally occurs at a depth of one to two feet. The colluvium is clast supported and consists of an olive brown, silty sand matrix that is generally loose, dry, and porous and consists of semi-rounded, moderately weathered cobbles with a general diameter of four inches. These soils are typically removed and moisture-conditioned prior to reuse as engineered fill and are generally not suitable to support structural loads.

Recent Alluvium (Qal)

Younger alluvial deposits occur in several areas on-site and generally occur at depths of approximately five to 19 feet bgs. Alluvial deposits average ten feet in depth in the southern portion of the site, south of 14th Street; five feet deep in the north-central portion of the site; ten feet deep in the northwestern portion of the site; and, 15 feet deep in the east-central portion of the site. The alluvium generally consists of brown to yellow brown silty coarse sands that are moist, loose, and porous at a depth of approximately five to nine feet bgs, with density increasing with depth. Remedial grading is typically required prior to placement of additional fill in these areas or construction of structures that are settlement-sensitive, as the upper five to

nine feet of the alluvium are not suitable to provide support for fill or structural loads; however, younger alluvium may be utilized as a fill material.

Older Alluvium (Qoal)

Older alluvial deposits were identified beneath the younger alluvium within a majority of the property, particularly between the Central fault zone and the slopes in the northern portion of the property. The older alluvial deposits are comprised of dark yellow brown silty coarse sands with silt and trace clay and are estimated to be approximately 40,000 years of age. An older alluvial unit, consisting of yellow red silty sand with trace blocky, cemented clay, was also identified along ridgelines and within the alluvial plain near fault zones. This unit was estimated to be approximately 100,000 years of age. The older alluvium is capable of supporting structural loads and engineered fill.

Undeveloped Soil

Undeveloped soil is found in depositional contact between two older alluvial units. The soil is generally loose, moist, dark yellow brown, and channelized.

Debris Flow Deposits (Qdf)

Debris flow deposits were identified along the hillsides and in several trenches during the site investigation to depths greater than eight feet. Additional debris flow deposits may also occur in areas where Pleistocene conglomerate occurs, in the northern portion of the property. Such debris flows may be the result of regional earthquake loading. The debris flow deposits consist of a yellow silty coarse sand matrix with saprolitic granitic and gneissic clasts, with boulder to cobble conglomerates and sand/gravel beds. Removal and replacement of the debris flow deposits with engineered fill is typically recommended in order to support structural loads.

Paleosol (Qp)

Paleosol is a layer of fossilized soil, usually buried beneath layers of rock or more recent soil. On-site, these soils are dense, dry to damp, red brown clayey silty sand with trace gravel, generally massive, and cemented with an angular blocky structure.

Pleistocene Conglomerate (Qps)

Pleistocene conglomerate occurs in the northern portion of the property along the hills, and along the fault zone in the southern portion of the site. These soils were originally deposited as an alluvial fan from a source area in the San Bernardino Mountains, and have since been faulted, uplifted, and eroded. The deposits consist of yellow, coarse silty sand, with granitic, gneissic and gabbroic clasts, which are generally three to 12 inches in diameter with boulders

up to four feet in diameter. A weathered zone was identified within some area where little or no slope occurred. Pleistocene conglomerate can be used to support structural and engineered fill loads.

Off-Site Soils - Pipeline Locations

Pleistocene Age alluvial fan deposits generally underlie the areas that would be affected by the proposed off-site infrastructure improvements. The majority of these deposits consist of sand and gravel of plutonic and gneissic detritus derived from the San Bernardino Mountains to the north of the Project area. The Noble Street, Cherry Avenue, Lincoln Street, and Dutton Street right-of-ways could be affected by the proposed off-site improvements. Bedrock is not anticipated to occur along any of these street alignments. The northern portions of these three streets are underlain with dissected sand and gravel alluvial fan deposits. In the area where the pipeline alignments are proposed to meet (on Noble Street near the point of connection to the existing conveyance facilities), the northern portion of the right-of-way is underlain with alluvial gravel and sand stream channel deposits.

Geology and Seismicity

On-Site Geology and Seismicity

The central segment of the Banning fault¹, which extends from Calimesa to Whitewater Canyon, is present within the Project. The fault is obscured by Quaternary sediments in the vicinity of the Project site. The central Banning fault zone is comprised of two, parallel fault segments (Strands A and B, both located on-site) and includes the Wildwood Canyon fault, located northwest of the Project site. Strand A of the Banning fault passes beneath the Banning Bench and has been mapped as an Alquist Priolo (AP) Earthquake Fault Hazard Zone (see additional discussion below).² The more northerly trace of the Banning fault (Strand B) is believed to be an early trace of the San Geronio Pass fault zone and is considered active, though it is not mapped as an AP zone. The Highland Springs scarp is thought to be a composite scarp resulting from activity of Strand B on the Wildwood Canyon branch and is not considered active.³ These fault zones are shown on Exhibits 4.7-1, *Regional Fault Zones*, and 4.7-5, *Fault Setback Zones*.

¹ USGS Western Region Geology and Geophysics Science Center, Western Surface Processes Team, *San Andreas Fault System in the Inland Empire and Salton Trough, Banning Fault*, pp 1-8, http://geomaps.wr.usgs.gov/socal/geology/inland_Empire/ie_banning_fault.htm, accessed 7/16/2010. Additional information can be found at http://www.data.scec.org/fault_index/banning.html.

² Details regarding the State's Alquist-Priolo Earthquake Fault Hazard Zones can be found at <http://www.conservation.ca.gov/CGS/rghm/ap/Pages/Index.aspx>.

³ Geocon Inland Empire, *Fault Rupture Hazard Investigation: Deutsch Property, Highland Springs Avenue and Wilson Street, Banning, California*, November 2005.

According to the Fault Rupture Hazard Investigation prepared by Geocon (November 2005) for the Project site, the San Gorgonio Pass fault zone within the site includes: the above noted Strands A and B of the Banning fault within the northern area of the property; two small fault scarps approximately 3000 feet south of the Banning fault; an unnamed north-south tear fault along the eastern property boundary; and an unnamed fault mapped near the central area of the Project site. Other faults are postulated to extend from the northwestern property corner to the eastern site boundary near 14th Street. The Project site appears to be an area of transition between the more active fault zone to the east and the inactive zone to the west.

The Banning fault has the most immediate impact on the Project site and proposed development. The fault is believed to have been the epicenter for the M5.6,⁴ 1986 North Palm Springs earthquake and may have been associated with the June 16, 2005 M4.9 Yucaipa earthquake. The most significant fault with respect to potential ground motion impacts on the site is the San Bernardino segment of the San Andreas fault, which is capable of producing an M8.0 earthquake.

In 2005, Riverside County adopted, and FEMA approved, the *Riverside Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan* (LHMP). As part of the LHMP planning process, each participating jurisdiction was asked to conduct an assessment of hazards for their jurisdiction. The assessment process required identification of the hazards specific to a given jurisdiction, the impact of those hazards, and the specific goals and strategies for the jurisdiction to address the hazards. The County Office of Emergency Services (OES) developed a computer based Emergency Response database that functions similar to HAZUS (**HAZ**ards **U**nited **S**tates), a database created by FEMA to assess potential losses due to natural hazards, including earthquakes. Potential loss estimates analyzed in a HAZUS-type analysis include: (1) **Physical damage** to residential and commercial buildings, schools, critical facilities, and infrastructure; (2) **Economic loss**, including lost jobs, business interruptions, repair and reconstruction costs; and (3) **Social impacts**, including estimates of shelter requirements, displaced households, and population exposed to scenario floods, earthquakes and hurricanes.

The HAZUS evaluation of seismic hazard in the City of Banning in the LHMP is predicated upon a M7.1 seismic event on the San Jacinto fault, with its epicenter between San Jacinto and Beaumont.⁵

⁴ M = magnitude. The magnitude of most earthquakes is measured on the **Richter scale**. The Richter magnitudes are based on a logarithmic scale (base 10); accordingly, for each whole number increase on the Richter scale, the amplitude of the ground motion recorded by a seismograph is ten times greater. Using this scale, a magnitude 5 earthquake would result in ten times the intensity of ground shaking as a magnitude 4 earthquake, and 32 times as much energy would be released.

⁵ County of Riverside LHMP Part II, *Riverside County Multi-Jurisdictional Local Hazard Mitigation Agency Inventory – City of Banning*, 2005.

Off-site Geology and Seismicity

Areas where off-site improvements are proposed as part of the Project exhibit general geologic characteristics similar to those identified in the Project site; however, none of the areas where the proposed water, sewer, or recycled water lines would be constructed are located within an identified Alquist-Priolo earthquake fault hazard zone. In addition, no active faults with the potential for surface fault rupture are known to pass under the proposed alignments.

Fault Rupture

The *Alquist-Priolo (AP) Special Studies Zones Act* was approved in 1972 and requires evaluation of fault lines on individual properties that are located within AP Special Studies Zones, as defined by the Act. Such evaluations are intended to identify potentially *active* faults in an effort to restrict future construction of habitable structures on their traces so as to reduce the potential for property damage or risk to human health and safety.

An *active* fault is one that has experienced surface displacement during the Holocene Epoch, or within roughly the last 11,000 years.⁶ Earthquake Fault Hazard Zones are delineated using the above cited definition of active faults. The northern portion of the Project site is located within an Earthquake Fault Hazard Zone; refer to Exhibit 4.7-5, *Fault Setback Zones*.

In 1994, the California Division of Mines and Geology (presently California Geological Survey) prepared a Fault Evaluation Report (FER-235) for the Beaumont Quadrangle, in which the Project site is located. In addition to describing the Banning fault and its segmentation, an aerial photograph and field observation summary for FER-235 also describes the Highland Springs scarp, which is concealed by Holocene fan deposits. An additional short north-south fault along Smith Creek, mapped by Matti and Morton in 1992, was not noted in FER 235 and is believed to be an erosional channel margin. The above cited unnamed north-south tear fault along the eastern property boundary was inferred by Matti & Morton but is concealed and has no current expression.

FER-235 concludes that the SGPFZ, which includes the Banning fault, shows evidence of Holocene displacement extending eastward from the Banning Bench. The SGPFZ shows no evidence of Holocene activity west of the Banning Bench; however, future ground ruptures throughout the entire extent of the zone, including the central segment located within the Project site, are considered possible.

⁶ California State Mining and Geology Board http://www.consrv.ca.gov/CGS/rghm/ap/Pages/t_14_3600.aspx, accessed January 2008.

Seismic Ground Shaking

Ground motions are often measured as a percentage of gravity, where g (the acceleration due to gravity) is approximately 32 feet per second per second (9.8 meters per second per second). Due to the location of the Project site and the seismic characteristics of the region, ground shaking accompanying earthquakes on nearby faults is anticipated within the Project area; however, the intensity of ground shaking experienced at the Project site would be dependent upon several factors including the magnitude of the earthquake, distance from the site to the earthquake epicenter, and the geology of the area between the epicenter and the Project site.

As noted, the known active faults closest to the Project site are the on-site Banning fault strands A and B and the Highland Springs fault. The Banning fault is considered active and interacts with, and may be considered a part of, the San Andreas fault system. It is considered capable of generating an earthquake with a probable moment magnitude (i.e., an estimate of the largest probable earthquake magnitude that a particular segment of a fault is capable of producing as measured on a magnitude scale at the moment the earthquake occurs, expressed as M_w) ranging from M_w 6.0 – 7.2.⁷ However, in determining the intensity of ground shaking which on-site structures should be designed to withstand (i.e., the “design basis” earthquake), Geocon did not use the on-site Banning fault; rather, it used the probable magnitude of an earthquake with its epicenter on the main strand of the San Andreas Fault, which is located approximately 4 miles north of the Project site and is estimated to be capable of generating an earthquake of greater magnitude. This “maximum credible earthquake” (i.e., the largest earthquake reasonably capable of occurring in the region based on current geological knowledge) on the most proximate segment of the San Andreas fault is estimated to have a moment magnitude of M_w 7.4. According to the Geocon report, this design basis earthquake would generate a probabilistic peak ground acceleration of 0.74 g at the Project site, meaning that the site would likely be subjected to significant ground shaking in the event of a major earthquake occurring on the San Andreas or other nearby regional or local faults.

Liquefaction

Soil liquefaction describes the behavior of soils that, when loaded by earthquake shaking or blasting, suddenly transition from a solid state to a liquefied state. Liquefaction is more likely to occur in loose to moderately saturated granular soils with poor drainage such as silty sands or sands and gravels capped or containing seams of impermeable sediments. Earthquake liquefaction may occur during strong ground shaking events as the shaking causes increased pore water pressure in these loose, saturated, relatively cohesionless soil deposits, resulting in a loss of shear strength. The potential for liquefaction to occur is primarily influenced by the nature of the soils and proximity of groundwater to the surface, but is also influenced by the intensity and duration of ground motion, gradation characteristics of subsurface soils, and on-

⁷ Southern California Earthquake Data Center, *Banning Fault Zone*, as retrieved from http://www.data.scec.org/fault_index/banning.html, 8/12/2010.

site stress conditions. Due to the density of on-site soils at depth and the depth of groundwater (greater than 300 feet bgs), the *Geocon Geotechnical Report and Fault Rupture Analysis* indicates that the potential for liquefaction on the Project site is considered to be very low. The Riverside County Pass Area Plan also indicates that the Project site is located in an area with very low liquefaction potential.⁸

Lateral Spreading

Lateral spreading occurs as the result of lateral displacement of surficial blocks of sediment due to liquefaction in a subsurface layer. The potential for lateral spreading is associated with areas that are prone to liquefaction. Liquefaction-induced lateral spreading occurs on mild slopes of 0.3 to 5 percent underlain by loose sands and a shallow water table. Such soil deposits are prone to pore pressure generation, softening, and liquefaction during large earthquakes. If liquefaction occurs, the unsaturated overburden soil can slide as intact blocks over the lower, liquefied deposit. The geologic conditions conducive to lateral spreading (gentle surface slope, shallow water table, and liquefiable cohesionless soils) are frequently found along streams and other waterfronts in recent alluvial or deltaic deposits, as well as in loosely-placed, saturated, sandy fills.

As previously described, the Project site's topography is characterized by generally flat to gently sloping terrain increasing to steep slopes in its northern area. As described under *Soils*, both old and recent alluvial deposits are found in several areas of the Project site, since the site is traversed by two drainages, and sits above the Beaumont groundwater basin. However, groundwater beneath the Project site is between 300 to 500 feet bgs and the site's liquefaction potential is considered very low; therefore, the conditions necessary for liquefaction-induced lateral spreading are unlikely to exist within the site's boundaries.

Seismic Densification

Seismic densification of dry soils occurs when loose, dry soils (primarily sands and silty sands) densify and settle when subjected to earthquake-induced ground shaking. Densification occurs more frequently in unconsolidated, loosely packed, alluvial deposits. As the Project site is located in an area where potentially strong ground shaking associated with nearby seismic activity may occur, and contains medium dense, dry alluvial deposits, portions of the Project site could be susceptible to seismic densification of dry soils; however, the potential for densification to affect structures on-site should be reduced by the compaction of soil under structures and streets during grading activities.

⁸ See Figure 13, (Seismic Hazards), Hazards Section of the Pass Area Plan, Riverside County Integrated Project (RCIP).

Landslides and Debris Flows

The causes of landslides are usually related to instabilities in slopes. In the majority of cases the main trigger of landslides is heavy or prolonged rainfall; however, a second major factor in the triggering of landslides is seismicity. Landslides can occur during earthquakes as a result of two separate but interconnected processes: seismic shaking and pore water pressure generation.

Landslides Due to Seismic Shaking

The passage of seismic waves through the rock and soil produces a complex set of accelerations that effectively act to change the gravitational load on a slope in a manner that can be sufficient to induce slope failure, particularly in mountainous areas in which seismic waves interact with the terrain to produce increases in the magnitude of ground accelerations – a process known as “topographic amplification.” The maximum acceleration is usually seen at the crest of the slope or along the ridgeline, meaning that most seismically triggered landslides extend to the top of the slope.

Landslides Due to Liquefaction

The passage of earthquake waves through a granular material can induce liquefaction, generating flow slides that can be rapid and very damaging.

For the most part, seismically generated landslides tend to be more widespread and sudden than landslide events triggered by other causes. The most abundant types of earthquake-induced landslides are rock falls, disrupted rock slides, and disrupted slides of earth and debris. Earth flows, debris flows, and avalanches of rock, earth, or debris typically transport material the farthest.

During the geotechnical field investigations and associated trenching activities, debris flow deposits were found on-site and along south facing slopes both off and on-site although no evidence of deep-seated landslides has been identified on the Project site; refer to Exhibit 4.7-4, *Slope Stability Map*. The northern reaches of the site extend into the foothills of the San Bernardino Mountains and could potentially be affected by rock falls or other seismically induced landslides occurring off-site. As previously noted, the site has a low probability for liquefaction and, therefore, on-site slopes are unlikely to be affected by liquefaction-induced landslides.

4.7.2.2 REGULATORY SETTING

Alquist Priolo Earthquake Fault Zoning Act (1972)

California adopted the *Alquist-Priolo (AP) Earthquake Fault Zoning Act* in 1972, subsequent to the 1971 San Fernando earthquake, which caused extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. The Act is intended to prevent construction of buildings used for human occupancy on the surface trace of active faults, thereby reducing the potential for harm to humans and/or structures due to surface rupture. The Act addresses only the hazard of surface fault rupture and does not address other types of earthquake hazards.

An Alquist Priolo Earthquake Fault Hazard Zone is located in the northern portion of the Project site, together with several lineaments (i.e., linear topographic features that reveal a characteristic feature such as a possible fault) that were identified to the south of the AP Zone. The Alquist-Priolo Act provides that “no structure for human occupancy, identified as a project under Section 2621.6 of the Act, shall be permitted to be placed across the trace of an active fault. Furthermore, as the area within fifty (50) feet of such active faults shall be presumed to be underlain by active branches of that fault unless proven otherwise by an appropriate geologic investigation and report prepared as specified in Section 3603(d) of this subchapter, no such structures shall be permitted in this area.” The proposed Project observes the required 50 foot setback from the on-site AP zone.

Seismic Hazards Mapping Act (1989)

California adopted the *Seismic Hazards Mapping Act* (SHMA) in 1989 to improve public safety and minimize the adverse effects of strong ground shaking, liquefaction, landslides, ground failure, and other earthquake-related hazards.⁹ The program and actions required by the SHMA are similar to those required by the *Alquist-Priolo Earthquake Fault Zoning Act*, although the *Alquist-Priolo Earthquake Zone Act* is limited to surface fault-rupture hazards while SHMA addresses other seismic hazards as well. Significant requirements of the SHMA include:

- The State Geologist is required to delineate the various “seismic hazard zones.”
 - Cities and Counties, or other local permitting authorities, are required to regulate certain development projects within these zones and must withhold the development permits for a site within a zone until its geologic and soil conditions are investigated and appropriate mitigation measures, if any, are incorporated into development plans.

⁹ California Geological Survey – Department of Conservation,
http://gmw.consrv.ca.gov/SHMP/webdocs/fact_sheet.pdf, accessed January 2008.

- The State Mining and Geology Board provides additional regulations, policies, and criteria to guide cities and counties in the implementation of the law, including guidelines for preparation of the Seismic Hazards Zone Maps (available at <http://www.consrv.ca.gov/dmg/shezp/zoneguide.html>) and for evaluating and mitigating seismic hazards; refer to Special Publication 117, Guidelines for Evaluation and Mitigating Seismic Hazards in California, CGS.
- Sellers of real property within a mapped hazard zone, and their agents, must disclose that the property lies within such a zone at the time of sale.

The Banning fault is an active fault that runs through the Project site as illustrated in Exhibit 4.7-5 and is required to comply with the provisions of the SHMA as administered by the City of Banning pursuant to its Municipal Code; also refer to page 4.7-7 discussion of on-site faults.

2010 California Building Code and 2010 California Residential Code

In 2009 the International Residential Code (IRC) serves as the basis for the 2010 California Residential Code (CRC), which replaces the 2007 California Building Code (CBC) as the basis for determining structural and other design component standards for 1-2 family residential dwellings up to 3 stories in height. In addition, the State adopted the 2010 California Building Code for all other structures. Both amend Title 24, Part 2 of the California Code of Regulations and replace the 2007 CBC. In terms of earthquake design regulations, the 2007 CBC replaced seismic zones with acceleration maps used to ascertain site seismicity and thereby determine a Seismic Design Category (SDC) based on the proposed use of the building. The 2010 Codes include additional changes in SDCs for residential buildings in California as well as other seismic requirements.

In general, the SDC drives the level of structural detailing required for seismic resistance and is determined by first classifying the structure according to its use and/or function into one of four Seismic Use Groups (SUGs). These include: (1) Standard occupancy structures, such as single family and multi-family residences and standard commercial structures; (2) Special occupancy structures, such as those used for public assembly, such as conference rooms, auditoriums, and dining rooms, and wastewater treatment facilities; (3) Hazardous facilities that support or contain sufficient quantities of toxic or explosive substances to be dangerous in the event of release; and (4) Essential facilities, which would include hospitals, fire stations, designated emergency shelters, such as schools. The proposed Project would contain structures that fit into categories I (residential structures), 2 (golf course club house, satellite waste treatment facility), and 4 (proposed schools and fire station).¹⁰

¹⁰ IBC, Seismic Use Groups, Table 1-1, September 30, 1999,
http://www.tpub.com/content/UFC1/ufc_3_330_03a/ufc_3_330_03a0012.htm, accessed 10/4/2010

Based on these SUGs and the applicable design ground motion, the buildings are further assigned a SDC, which is a calculated value based on the distance of a structure from an anticipated seismic source and average subsurface conditions within the upper 100 feet at the site. The soil type, groundwater elevation, and depth to bedrock also play a critical role in determining the SDC and the overall risk of damage to a structure. While the SUG classification dictates the seismic performance objective for the building, the SDC influences the permissible structural system, allowable height, and other design parameters; refer to Table 4.7-1 below.

Table 4.7-1
Basis for Seismic Design Criteria in Model Codes and Standards

	Seismic Zones	Seismic Performance Categories	Seismic Design Categories
Classifications	0, 1, 2, 3, 4	A, B, C, D, E	A, B, C, D ₀ , D ₁ , D ₂ , E, F
Criteria for Classification	Location	Location and Building Use	Location, Building Use, and Soil Type
Used by Model Codes and Standards	CBC 1997 ¹¹ SBC 1991 ¹² BOCA/NBC 1990 ¹³ MSJC 1992	SBC 1999 BOCA/NBC 1999 MSJC 1999 ¹⁴	IRC 2009/CRC 2010 ¹⁵

In the 2010 California Residential Code the default SDC D has been subdivided into three categories based on estimated ground acceleration, as illustrated in Table 4.7-2, *Basis for Seismic Design Categories – Percentage of Gravity (g)*.

Table 4.7-2
Basis for Seismic Design Categories – Percentage of Gravity (g)¹⁶

Seismic Design Category	S _{ds} (g)
A	≤0.17
B	≥0.17 ≤0.33
C	≥0.33 ≤0.50
D₀	≥0.50 ≤0.67
D₁	≥0.67 ≤0.83
D₂	≥0.83 ≤1.17
E	≥1.17

¹¹ CBC = California Building Code:

¹² SBC = Standard Building Code

¹³ BOCA/NBC = Building Officials and Code Administrators National Building Code

¹⁴ MSJC = Masonry Standards Joint Committee

¹⁵ CRC = California Residential Code

¹⁶ Table R301.2.2.1.1 of 2006 IRC as retrieved from [http://ngmdb.usgs.gov/Info/docs/DMT08 3/6/2011](http://ngmdb.usgs.gov/Info/docs/DMT08%203/6/2011)

The default SDC for the proposed Project site is **D₁**, based upon the maximum ground acceleration associated with the design earthquake (i.e., 0.74g) and the fact that a substantial portion of the site is influenced by Smith Creek and/or is located in a flood plain or inundation area for surface flow.¹⁷ The SDC for any specific building pad on the site would be determined once building pad locations are set by tentative maps, and site specific geotechnical and soils testing and the appropriate calculations completed as part of the grading and building design process.

County of Riverside General Plan Pass Area Plan, Hazards Element

The Hazards Element of the County of Riverside General Plan Pass Area Plan identifies areas that are subject to hazards as the result of flooding, dam inundation, seismic occurrences, and/or wildfire. The County's General Plan Safety Element also includes goals and policies to reduce the potential for damage from such conditions or events. Figure 13 in the Hazards Section of the Pass Area Plan shows areas of the City of Banning (including the project area) and ranks their relative susceptibility to liquefaction, among other seismic hazards. Specific hazards relative to the Project site include, flooding, proximity to a high fire hazard area, seismic hazards associated with faulting, and slope instability.

The County's Multi-Hazard Functional Plan outlines the responsibilities of the various County agencies in times of disaster, including earthquakes, and is implemented on the regional and local level with the cooperation and participation of local municipalities (refer to Section 4.8, *Hazards and Hazardous Materials* for a more detailed discussion).

Within the rapidly growing County of Riverside, State AP mapping has not kept pace with development. Accordingly, the County of Riverside has zoned fault systems and required special studies similar to those required for AP zones prior to development. These County zones generally represent zones that have been identified from groundwater studies, and the County recommends that they should be viewed as a potential hazard.

The County regulates most development projects within earthquake fault zones. Regulated projects include all land divisions and most structures for human occupancy. Exempted projects include single family, wood frame and steel-frame dwellings that are one or two stories, are not part of a development of four units or more, and are not located within 50 feet of a fault. Before a project can be permitted within an AP Earthquake Fault Zone, County Fault Zone, or within 150 feet of any other potentially active or active fault mapped in published USGS or CGS (formerly California Division of Mines and Geology) reports, a geologic investigation must demonstrate that proposed buildings would not be constructed across active faults. A site-specific evaluation and written report must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy must be set back 50 feet from the fault.

¹⁷ California Building Code section 16135.6.1, Table 16135.6(1) and (2), as retrieved from http://napasolanoicc.org/PDF_Files/Seismic%20Design%20Category%20_06%20IBC_.pdf, 8/12/2010.

Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) Parts 1 and 2 (Banning) 2005

In 2005, the County of Riverside updated its Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP). Among the participants in the planning process was the City of Banning. The LHMP Goals and Objectives include: (1) reducing possibility of damage and loss to existing community assets, critical facilities, and infrastructure due to natural, man-made, and technological hazards by, among other things, promoting disaster-resistant future development; (2) reducing possibility of damage and loss due to floods; and (3) reducing damage and loss to existing communities assets due to landslides by better identifying the types and locations of potential landslide zones. Participating jurisdictions were asked to conduct an assessment of hazards for their jurisdiction. The City of Banning's assessment is contained in Part II of the LHMP.

Earthquake risks for each city and unincorporated areas of the county were developed in terms of the vulnerability of the population and infrastructure. Earthquake scenarios were used based on the major earthquake faults in the County of Riverside. The LHMP contains an extensive evaluation of the severity and probability potential of different hazards, and includes an assessment for the City of Banning. The LHMP identifies faults, flooding, hazardous materials storage, and pipelines as potential hazards that could affect the City of Banning. Many of these hazards are identified on-site as well and will be discussed in the impact discussion section below.

City of Banning General Plan, Geotechnical Element

The City of Banning's General Plan includes a Geotechnical Element that includes goals, policies and programs that address the existing geologic and seismic characteristics within the City of Banning, its Sphere-of-Influence, and the expanded General Plan Planning Area. The Geotechnical Element provides measures that would reduce the potential for property damage and for harm to human health or loss of life which could occur as the result of geologic or seismic activity or the condition of site soils or other geologic hazard.¹⁸ The City's Comprehensive General Plan EIR includes mitigation measures intended to reduce potential adverse effects associated with site soils and geologic conditions, including seismic hazards that might occur as a result of the build out of the Comprehensive General Plan. While these mitigation measures generally reference the provisions of the California Building Code (CBC), they can be read to require compliance with the most current standards contained in Title 24 of the California Code of Regulations (currently the 2010 California Building Code) as adopted by the City of Banning pursuant to State requirements. These General Plan EIR mitigation measures include:

¹⁸ City of Banning General Plan, January 2006.

Geology and Soils Mitigation Measure A

- 1) Prior to issuance of building permits, the property owner/developer shall demonstrate that all structures have been designed in accordance with the most recent seismic standards in the UBC and approved by the Public Works Director. The UBC contains provisions that regulate the design and construction of excavations, foundations, retaining walls and other building elements to control the effects of seismic ground shaking and adverse soil conditions.
- 2) Prior to approval of each grading plan, the property owner/developer shall submit a geotechnical report prepared by a licensed soils/engineering geologist and geotechnical engineer to the Public Works Director for review and approval. This report shall be prepared in accordance with California Building Code (CBC) standards and to the satisfaction of the City Engineer, and shall address soil and geology related constraints and hazards identified in this EIR, such as slope stability, settlement, liquefaction, and related secondary seismic hazards. Specifically, the report shall:
 - Include an assessment of potential soil related constraints such as stability of proposed cut, fill, and natural slopes. Conduct further subsurface exploration to refine geologic structure for cut slope stability. If the report finds stabilization necessary, grading plans shall require corrective measures to address the need for stabilization;
 - Include an assessment of on-site landslides and appropriate corrective measures, such as further subsurface exploration of landslide areas beneath planned fills and development areas. Corrective measures would include complete removal, if feasible, or stabilization or buttressing of the landslide. This would involve partial removal of the landslide and stabilizing potential future movement with earthen fill or reinforced materials;
 - Evaluate excavation characteristics of on-site earth materials;
 - Establish specific remedial grading requirements, including but not limited to establishing parameters for stabilization/buttressing of slopes, removal of unstable soil materials;
 - Provide grading, foundation, and structural design recommendations based on findings of future geotechnical investigations;

- Address settlement, liquefaction, and structural design recommendations. Grading plans shall incorporate removal, where feasible, of all potentially liquefiable alluvium/fan deposits and colluvium;
- Address the potential for expansive soils. Representative soil samples of near-surface soil material will be collected and tested for expansion potential after the completion of rough grading on site. Expansive soils that are detrimental to the Project shall be subject to special building/foundation design, deepened foundations, post-tension foundations, soil removal, selective grading to blend highly expansive soils with soils of low expansivity, moisture conditioning, or other corrective measures as recommended by a licensed soils/geotechnical engineer and approved by the Public Works Director prior to approval of each grading plan;
- Include an evaluation of potentially corrosive soils and recommend appropriate corrective measures. If corrosive soils are found, corrective measures shall be incorporated into the grading plans;
- Address collapsible/compressible material. This material shall be subject to removal or other corrective measures in all areas planned for structural fill. Topsoil, colluvium, alluvium, highly weathered bedrock, and landslide materials with settlement potential shall be subject to corrective measures such as removal and recompaction, surcharging, settlement monitoring, and/or other measures deemed appropriate by the geotechnical engineer of record and approved by the Public Works Director prior to approval of each grading plan;
- Include appropriate laboratory testing to define soil engineering parameters; and
- Include a review of seismic and faulting conditions on-site. Seismic design parameters identified for the project shall be incorporated into project design as applicable.

Geology and Soils Mitigation Measure B

Proper structural engineering, which takes into account the forces that will be applied to structures by anticipated ground motions, shall provide mitigation for ground shaking hazards. Seismic design shall be in accordance with the most recently adopted editions of the Uniform Building Code and the seismic design parameters of the Structural Engineers, Association of California.

Geology and Soils Mitigation Measure H

Where development is proposed adjacent to or in close proximity to steep slopes, site-specific geotechnical studies shall be conducted to evaluate the potential for rock falls and/or slope failure, and to establish mitigation measures which minimize hazards.

Geology and Soils Mitigation Measure J

During the site grading, all existing vegetation and debris shall be removed from areas that are to receive compacted fill. Any trees to be removed shall have a minimum of 95 percent of the root systems extracted. Man-made objects shall be over excavated and exported from the site. Removal of unsuitable materials may require excavation to depths ranging from 2 to 4 feet or more below the existing site grade.

Geology and Soils Mitigation Measure R

All fill soil, whether on site or imported, shall be approved by the individual project soils engineer prior to placement as compaction fill. All fill soil shall be free from vegetation, organic material, cobbles and boulders greater than 6 inches in diameter, and other debris. Approved soil shall be placed in horizontal lifts or appropriate thickness as prescribed by the soils engineer and watered or aerated as necessary to obtain near-optimum moisture-content.

Geology and Soils Mitigation Measure S

Fill materials shall be completely and uniformly compacted to not less than 90 percent of the laboratory maximum density, as determined by American Society for Testing and Materials (ASTM) Test Method D-1557-78. The project soils engineer shall observe the placement of fill and take sufficient tests to verify the moisture content, uniformity, and degree of compaction obtained. In-place soil density should be determined by the sand-cone method, in accordance with ASTM Test Method D1556-64 (74), or equivalent test method acceptable to the City Building Department.

Geology and Soils Mitigation Measure T

Finish cut slopes generally shall not be inclined steeper than 2:1 (horizontal to vertical). Attempts to excavate near-vertical temporary cuts for retaining walls or utility installation in excess of 5 feet may result in gross failure of the cut and may possibly damage equipment and injure workers. All cut slopes must be inspected during grading to provide additional recommendations for safe construction.

Geology and Soils Mitigation Measure U

Finish fill slopes shall not be inclined steeper than 2:1 (horizontal to vertical). Fill slope surfaces shall be compacted to 90 percent of the laboratory maximum density by either overfilling and cutting back to expose a compacted core or by approved mechanical methods.

Geology and Soils Mitigation Measure V

Foundation systems that utilize continuous and spread footings are recommended for the support of one- and two-story structures. Foundations for higher structures must be evaluated based on structure design and on-site soil conditions.

Geology and Soils Mitigation Measure W

Retaining walls shall be constructed to adopted building code standards and inspected by the Building Inspector.

Geology and Soils Mitigation Measure X

Positive site drainage shall be established during finish grading. Finish lot grading shall include a minimum positive gradient of 2 percent away from structures for a minimum distance of 3 feet and a minimum gradient of 1 percent to the street or other approved drainage course.

Geology and Soils Mitigation Measure Y

Utility trench excavations in slope areas or within the zone of influence of structures should be properly backfilled in accordance with the following recommendations:

- (a) Pipes shall be bedded with a minimum of 6 inches of pea gravel or approved granular soil. Similar material shall be used to provide a cover of at least 1 foot over the pipe. This backfill shall then be uniformly compacted by mechanical means or jetted to a firm and unyielding condition.
- (b) Remaining backfill may be fine-grained soils. It shall be placed in lifts not exceeding 6 inches in thickness or as determined appropriate, watered, or aerated to near optimum moisture content, and mechanically completed to a minimum of 90 percent of the laboratory maximum density.
- (c) Pipes in trenches within 5 feet of the top of slopes or on the face of slopes shall be bedded and backfilled with pea gravel or approved granular soils as described above. The remainder of the trench backfill shall comprise typical on-site fill soil mechanically completed as described in the previous paragraph.

City of Banning Code of Ordinances (Municipal Code) Title 18

On July 14, 2009 the City of Banning adopted Ordinance No. 1388 (City of Banning Grading, Erosion, and Sediment Control Ordinance) as Title 18 of the City's Code of Ordinances. The City's Grading Standards, contained in the Public Works Department Grading Manual, became effective on August 13, 2009. The Standards incorporate all of the mitigation measures contained in the City's Comprehensive General Plan EIR cited above and address all of the Goals and Policies of the City's Comprehensive General Plan. The Standards also incorporate the policies and guidance provided by Riverside County and the requirements of the 2007 California Building Code. On January 11, 2011, the City adopted Ordinance No. 1433, Amending Chapter 15.08 of the Municipal Code, adopting by reference the entirety of the 2010 California Building Code, California Residential Code, Green Building Standards Code, Plumbing Code, Mechanical Code, Electrical Code and International Property Maintenance Code as the City's Building Code. This action included adoption of the seismic standards and related structural standards included in the 2010 CRC and CBC. By inference, Ordinance 1433 also revised Title 18 to incorporate any applicable 2010 Code. The *California Health and Safety Code* (HSC) Section 17958.5 permits local jurisdictions to amend their own building standards to be more restrictive than HSC Title 24 if such amendments are justified on the basis of local geologic, topographic, or climate conditions. Banning has not adopted additional standards, but may do so in the future.

4.7.3 SIGNIFICANCE THRESHOLD CRITERIA

The significance criteria for this analysis were developed from Appendix G of the State *CEQA Guidelines*. The Potential impacts of geotechnical, soils and seismic hazards on Project development are also analyzed based on the City of Banning's *General Plan Land Use Element* and *Title 18 of the City's Municipal Code* (Grading and Erosion Control Regulations). The proposed Project would be considered to have a significant impact relative to geology, soils, or seismicity if it would:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - i) Rupture of a known earthquake faults, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault (including a County of Riverside designated Fault Hazard Area, or a County of Riverside designated Potential Fault Hazard Area);
 - ii) Strong seismic ground shaking;

- iii) Seismic-related ground failure, including liquefaction;
 - iv) Landslides.
- b) Result in substantial soil erosion or the loss of topsoil.
- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as the result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property or on soils with an expansion index greater than 20 percent.
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. Refer to Section 7.0, *Effects Found Not to be Significant*).

4.7.4 IMPACT ANALYSIS AND MITIGATION MEASURES

ANALYTIC METHOD

The previously certified Deutsch Banning Specific Plan EIR addressed development of the Project site with up to 5,400 dwelling units. Impacts discussed below are generally consistent with the impacts described in the 1985 Deutsch Specific Plan EIR and subsequent EIR Update in 1993. This analysis has been updated to reflect the currently proposed Butterfield Specific Plan, including the off-site infrastructure and 21-acre unincorporated parcel. The Project site would be mass graded in approximately four phases, beginning with the golf course, Smith Creek drainage improvements and fill placement in the southerly portion of the site. Concurrent with the initial phase of mass grading, applicable portions of off-site infrastructure and both on- and off-site drainage improvements would be constructed. The EIR analysis is based on review of available documents, including the proposed Specific Plan and associated, updated tentative tract maps, as well as Project-specific technical studies contained in Appendix E, *Geotechnical Reports*.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing local, State and federal regulations noted below would avoid or mitigate potential impacts related to geology, soils and seismicity. The following Project Design Features would also reduce, avoid or off-site potentially adverse impacts:

- 1) The Project has been redesigned from the previously approved Deutsch Specific Plan, which proposed grading the entire Specific Plan property. The redesigned Specific Plan and associated tract maps avoid grading the more steep northern portions of the site, and also have incorporated a setback area to ensure that structures are not placed on the identified fault traces within the Alquist Priolo Zone identified on the Project site.
- 2) In the ultimate condition, the developed site would result in substantially reduced wind- and runoff-induced erosion.
- 3) The Project incorporates appropriate setbacks from the Alquist Priolo zone established for strand A and assumed for strand B of the Banning fault.
- 4) The Project would adhere to all of the seismic requirements incorporated into the 2010 California Residential Code and 2010 California Building Code (or most current building code) and the requirements and standards contained in the applicable chapters of the City of Banning Municipal Code.
- 5) The Project would include the implementation and maintenance of BMPs to reduce or avoid soil loss due to wind and water erosion.
- 6) Prior to development of any upstream areas of the site, the potential for conveyance of debris originating in the off-site watershed would be accounted for in the design of on-site drainage facilities.
- 7) The Specific Plan requires that each phase of the development include an erosion control plan, consistent with the requirements of MC Title 18

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.7-1a: Surface Fault Rupture

Threshold: *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- i) *Rupture of a known earthquake faults, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, or a County of Riverside designated Fault Hazard Area, or a County of Riverside designated Potential Fault Hazard Area?*

Determination: Less than Significant

The Project site lies within a seismically active region of southern California that is subject to a significant amount of seismic activity associated with the northwest-trending San Andreas, San

Jacinto and the Elsinore fault systems. As noted in the description of existing conditions on the site, the San Gorgonio Pass fault zone, a part of the San Andreas fault zone, interacts with other faults, most notably the San Jacinto fault zone and the Pinto Mountain fault, within the Pass area and becomes somewhat fractured over the 70-mile distance extension from just north of San Bernardino to just north of Indio. Ancient and inactive strands of the San Andreas fault can be found within the SGPfz, and other localized fault segments in this area have also been identified in various studies, though researchers have used different names for the local faults and placed the dividing lines between certain named fault segments in varying places. The Banning fault is a part of this geologically fragmented system. The Project site is located between the more active Banning fault zone to the east and the inactive Banning fault zone to the west. The central segment of the Banning fault traverses the northernmost quadrant of the Project site and is comprised of two parallel fault segments, identified as strands A and B: Strand A is covered by an Alquist Priolo zone while strand B is also considered active.

As required by State law and local Building Code, building setbacks from the identified active fault zones are incorporated into the Project's site plan and were located based on an evaluation of fault character and level of activity observed during an on-site geotechnical investigation, as well as evidence gained through aerial photograph and literature review; refer to Section 8.0 of the *Fault Rupture Hazard Investigation* contained in Appendix E, *Geotechnical Reports*, for additional details on the on-site trenching analysis. Faults located within the Alquist-Priolo Zone in the northern portion of the site are no longer considered active; however, the older alluvium (Qoal₂) which overlies the faults to the southeast of the site in this area lacks age dating, and strand A of the Banning fault, which traverses this same area, is considered to have potential for future activity.

A zone of overlapping faults (central fault zone or CFZ), believed to join the main rupture plane at greater depths, is also present within the Project site. This zone is approximately 150 feet wide through most of its length, but widens to 600 feet within the western portion of the site. Based on the findings of the on-site geotechnical investigation, the CFZ is assumed to be active. For this reason, a 50 to 100-foot building setback along the CFZ, as measured from the fault trace, has been incorporated into the Project site plan, as shown on Exhibit 4.7-5, *Fault Setback Zones*. Two thrust faults, a north-south tear fault, and a localized fault near 14th Street, have been geologically mapped within the property. The thrust faults were mapped within the CFZ; building setbacks were recommended and incorporated into the site plan pursuant to Code requirements. Lineaments were also observed to the south of the AP zone (refer to Exhibit 4.7-5, *Fault Setback Zones*).

A series of east-west trending lineaments enter the Project site from the east. These lineaments appear to be the result of older faulting along the hills to the east and die out in the vicinity of the eastern boundary of the Project site. This localized faulting could be considered to be potentially active; however, no building setbacks are recommended as there is no evidence of Holocene displacement and no Alquist-Priolo zone has been established.

In addition to the above, a weak lineament was observed on the 21-acre parcel in the northwest portion of the Specific Plan Area, located within the County of Riverside during the aerial photograph review. The geotechnical investigation recommends completion of a subsurface fault hazard investigation during the potential future planning phase of development on this parcel, as provided for in the City's Grading Ordinance (Section 18.06.080 and 18.06.060 (B)).

As illustrated on Exhibit 4.7-5, *Fault Setback Zones*, the northern fault setback zone would affect Planning Area 73, designated as Open Space, while the southern fault setback zone would affect Planning Area 71, designated as Open Space and Basin, and Planning Area 35, designated as Open Space/Golf Course. Open Space land uses are not considered highly susceptible to fault hazards. All preliminary building setback zones are illustrated in Exhibit 4.7-5 of this EIR, which is based on Figure 3 of the Appendix E, *Fault Rupture Hazard Investigation*.

Since the site plan observes building setbacks as required by existing law and ordinance, and the potential for ground rupture to occur outside of the proposed building setback zone is considered to be low within the low-lying areas of the property, adverse impacts to structures or people due to surface fault rupture on-site would be considered less than significant.

A *Limited Geotechnical Investigation* (see Appendix E) was prepared by Geocon to evaluate potential geotechnical constraints that may potentially affect the areas where off-site improvements are proposed. The proposed pipeline alignments for water, sewer, and recycled water do not lie within an Alquist-Priolo earthquake fault zone nor were any active or potentially active faults identified along the proposed pipeline alignments. Accordingly, the potential for damage to off-site underground pipelines for water and sewer due to fault rupture would be less than significant.

Impact 4.7-1b: Ground Shaking

Threshold: *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- ii) Strong seismic ground shaking?*

Determination: *Less than Significant with Mitigation Incorporated*

As previously discussed, the Project site is located within a seismically active region of southern California, is traversed by various faults, and would likely be subjected to strong seismic ground shaking, which is considered the most serious seismic hazard likely to impact the Project. In addition to the on-site Banning fault, the active faults located in closest proximity to the site include the San Jacinto fault (10 miles southwest); Mill Creek fault (8 miles north); Mission Creek fault (7.2 miles northeast); Coachella Valley segment of the Banning fault (12

miles east); and the San Bernardino strand of the San Andreas fault (four miles north) and the Coachella Valley segment of the San Andreas fault (20 miles northeast).

In order to assess the potential impact of ground shaking on the site's built environment and to make recommendations regarding structural design of buildings on the site, Geocon estimated potential on-site ground motion assuming the occurrence of an earthquake along the San Bernardino segment of the San Andreas Fault, approximately 4 miles north of the site. The 2010 California Building Code and 2010 California Residential Code define the Design Basis Ground Motion (often accepted as the minimum standard) as the maximum *probable* event that could potentially affect a particular site along the closest active fault. Probabilistic peak ground acceleration at the site estimated by Geocon, using this approach, indicated a maximum acceleration of approximately 0.74g with a 10% probability of being exceeded in a 50-year period, assuming a magnitude M_w 7.4 earthquake on the San Bernardino segment of the San Andreas fault.

While the effect of seismic ground shaking cannot be entirely avoided in seismically active regions such as southern California, these effects maybe reduced to a less than significant level through the design of structures in compliance with the structural requirements contained in the 2010 California Building Code and 2010 California Residential Code. The purpose of the required design parameters is to ensure construction of buildings that will resist collapse during an earthquake. The 2005 Geocon report also recommended implementation of the seismic design parameters suggested by the Structural Engineers Association of California (SEAC). The majority of these (SEAC) design parameters have since been incorporated into the 2010 CBC and CRC.

Chapter 18.06.060 of the City's Municipal Code requires preparation of a seismicity report as a condition for the issuance of a grading permit for all grading applications associated with subdivisions as well as all grading projects that propose development with occupancy category II, III, IV structures as defined by the CBC and all real estate development that lies within an earthquake fault zone. The Municipal Code also requires these reports to comply with the requirements of the *Alquist-Priolo Earthquake Fault Zoning Act* and the requirements specified in the City's Grading Manual. Accordingly, in addition to the *Preliminary Geotechnical Report* for the site prepared in 2005 by Geocon, individual, site-specific geotechnical and seismic reports would be required by the City for each tract, as it is developed, over the life of the Project. Each report would include specific recommendations regarding foundation design and structural requirements for buildings proposed to be constructed within the subdivision consistent with the CBC and/or CRC.

Pursuant to the requirements of the Municipal Code, the City's Department of Building and Safety would ensure that building plans conform to all applicable structural requirements prior to the issuance of a building permit for any structure to be constructed on the Project site. Conformance with these requirements would be monitored during construction by City

building inspectors and would be confirmed prior to the issuance of certificate of occupancy for any structure. These measures would ensure that all Project structures are designed and built in conformance with the recommendations contained in the applicable geotechnical study and the most current seismic requirements of the adopted State of California building codes and any additional code requirements adopted by the City of Banning.

No specific seismic conditions that would restrict or prohibit the proposed on- and off-site infrastructure improvements have been identified during the geotechnical or fault rupture hazard investigations conducted to date. Compliance with the 2010 or most current CBC, and local ordinances that regulate site design and construction of such facilities would be required for all improvements constructed with Phase 1A and/or any other phase of the Project.

Compliance with site-specific structural recommendations and the requirements of the City's Code and the most current California Residential Code and/or California Building Code would reduce potential adverse effects on structures due to ground shaking to a less than significant level. That compliance would be ensured at the design stage and monitored through the construction stage by the City of Banning.

Mitigation Measures

In addition to compliance with the above cited requirements, the Project has reduced, avoided or offset potentially adverse impacts to geology, soils and seismicity through Project Design Features noted above (all of which are summarized in Section 3.7, *Project Design Features*). The following mitigation measure would further reduce potentially significant impacts. :

GEO-1: All structures on the Project site shall be constructed pursuant to the most current applicable seismic standards, as determined by the City as part of the tract map, grading plan, and building permit review processes, with building setbacks as recommended by the Project's Seismic Hazard Analysis (Geocon 2005). Design criteria developed for Project structures shall also be based on the most current standards of practice and design parameters suggested by the Structural Engineers Association of California based on the recommendations and amendments to the CBC by the Division of State Architect for specific types of buildings and occupancies.

Impact 4.7-1c: Seismically-Induced Ground Failure

Threshold: *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- iii) *Seismic-related ground failure, including liquefaction; subsidence, and lateral spreading?*

Determination: Less than Significant; also refer to Impact Analysis 4.7-1d – Landslides

Earthquakes can result in secondary ground failure such as local subsidence, soil liquefaction, lateral spreading, lurch cracking, and densification. These hazards are related to topographic, soil, and groundwater conditions and their potential to occur would depend upon the composition of the near-surface sediments, the depth of the water table, and the ground acceleration experienced at the site in any specific seismic event.

As noted previously, the RCIP Pass Area Plan indicates that the Project site is located in an area with moderate liquefaction potential. When considered with the density of on-site soils at depth and the depth of groundwater, the potential for liquefaction on the Project site is considered to be very low. In addition, the potential for lateral spreading is associated with areas that are prone to liquefaction. Since the potential for liquefaction at the Project site is considered to be very low, the probability of lateral spreading occurring on-site is also considered very low, and no mitigation measures are required.

Seismically induced settlement can occur in areas where earthquake shaking causes densification of relatively loose sediments. Settlement can cause damage to surface and near-surface structures. Since the site also contains medium dense alluvial deposits, the Project site would be considered potentially susceptible to seismic densification. The Geocon study estimated a total seismic-induced settlement (dynamic densification) of less than $\frac{3}{4}$ inch for a ground acceleration of 0.74g. Geocon indicated that a maximum seismically induced differential settlement of less than $\frac{1}{2}$ inch should be considered in the structural design of any structure on the site.¹⁹ Appropriate site preparation pursuant to the recommendations of the Project's geotechnical engineer as required by the City's Grading Standards and appropriate structural design as recommended by the Geocom study, any subsequent required studies, and as required by the 2010 CBC and CRC and the City of Banning Building Code would reduce potential impacts to structures as a result of seismically-induced settlement due to densification to a less than significant level.

A technical memorandum prepared by Geoscience Support Services in 2007 to evaluate the artificial recharge potential of the proposed Butterfield Project estimated the depth to groundwater on the Project site at between 377 feet bgs south of Wilson Street to 570 feet bgs at the USGS monitoring well located on Highland Springs Avenue adjacent to the western boundary of the Project site.²⁰ Field investigation by Geocon found no evidence of ground subsidence as a result of past groundwater withdrawal in the Project area or on the Project site. Accordingly, it is unlikely that the site would be affected by ground subsidence and no mitigation measures would be required.

¹⁹ Geocon Inland Empire, Inc., *Geotechnical Investigation, Deutsch Property Highland Springs Avenue and Wilson Street, Banning, CA*, Sections 5.3 (Liquefaction) and 5.4 (Seismic Densification), June, 2005, pp 6-7.

²⁰ Geoscience Support Services, Inc., *Preliminary Geohydrologic Evaluation of Artificial Recharge Potential – Proposed Butterfield Development, Banning, CA*, February 28, 2007, pp 8.

Impact 4.7-1d: Landslides

Threshold: *Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

iv) Landslides?

Determination: Less than Significant with Mitigation Incorporated

In the City of Banning, property damage resulting from landslides has occurred as development into hillside areas has increased. The potential for landslides to occur is increased during or following intense rainfall or seismic events resulting in ground shaking. Rock falls and rockslides may also occur, particularly along steep canyon walls and the natural slopes in the southern portion of the Banning Bench area.

The northernmost reaches of the proposed Project site extend into the foothills of the San Bernardino Mountains. Manufactured slopes of as much as thirty feet in height may be constructed as the more northerly portions of the site are developed. In addition, the Project site includes or abuts drainage courses that are capable of channeling debris flows generated by landslides occurring at higher elevations, particularly those that could be generated by seismic events. During the geotechnical investigation, debris flow deposits were identified within the fault trenches, and debris flows and landslides were observed during site reconnaissance along the south-facing slopes on-site. The hillside areas within the property may also support additional debris flow deposits; however, no evidence of deep-seated landslides was identified on the Project site. Nonetheless the potential for on-site landslides would exist within portions of PAs 73, 71, 69, 67, 61, and 60 in the natural condition. PA 73 would be left in its natural state following Project development and, therefore, lots located adjacent to its boundary in PAs 60 and 61 could be affected by landslides originating in PA 73; however, slopes in the balance of Planning Areas located within or in proximity to the foothill regions would be graded, protected from the effects of uncontrolled drainage through the construction of benches and down drains to channel flows, and stabilized with retaining walls and vegetation to reduce landslide potential. The proposed 30.4-acre north basin in PA 71 would be located at the base of the foothill area and would be designed to capture Smith Creek flows originating at higher elevations. The north basin could be subject to the effects of off-site landslides and resulting mudflows. The Specific Plan provides that prior to the development of upstream areas, the potential for the conveyance of debris from the off-site watershed would be accounted for in the design of on-site drainage facilities and the basin has been designed to divert such debris flows from the on-site drainage system without compromising the basin's capacity to detain storm flows.

As required by the City's Building Code and Grading Code, site-specific evaluation of geologic conditions prior to the grading design for each tract within the Specific Plan Project area be

required and would provide the basis for the development of site-specific design criteria needed to ensure that grading and drainage plans for manufactured slopes minimize the potential effects of landslides. The City would ensure that Project grading and drainage plans were designed pursuant to these site-specific criteria through the City's plan check process prior to the issuance of grading permits. Compliance with permitted grading and drainage plans would be monitored through the construction phase by City inspectors and certification of the stability of building pads and slopes would be required prior to the issuance of building permits for any structures on lots with slope exposure. These measures, together with compliance with other applicable regulations contained in the City's Title 18 Grading Standards and Building Code and General Plan EIR Geotechnical Element Mitigation Measures, would ensure that adverse effects associated with on-site landslide potential would be reduced to a less than significant level.

The 2007 *Limited Geotechnical Observation* did not identify any specific geologic conditions in the off-site locations of Project-associated infrastructure that would make landslides a concern.

Mitigation Measures

The following mitigation measures would further reduce potentially significant impacts involving potential landslide hazards:

GEO-2: A detailed analysis of site geotechnical conditions, field investigation and slope stability analyses shall be conducted as 40-scale grading plans for mass- and fine-grading are prepared in the course of the phased development of the Project site. These studies shall be submitted to the City Building Department or Building Official, and their recommendations incorporated into Project design to the satisfaction of the City Engineer, prior to the issuance of any grading permits, including those for mass grading, in areas where slopes of 10 feet or more in height are anticipated and/or where evidence of debris flows or past landslides is found.

GEO-3 The Project site shall be constructed pursuant to the following mitigation measure contained in the City of Banning General Plan EIR, Geotechnical Element:

- During the site grading, all existing vegetation and debris shall be removed from areas that are to receive compacted fill. Any trees to be removed shall have a minimum of 95 percent of the root systems extracted. Man-made objects shall be over excavated and exported from the site. Removal of unsuitable materials may require excavation to depths ranging from 2 to 4 feet or more below the existing site grade.

- All fill soil, whether on site or imported, shall be approved by the individual Project soils engineer prior to placement as compaction fill. All fill soil shall be free from vegetation, organic material, cobbles and boulders greater than 6 inches in diameter, and other debris. Approved soil shall be placed in horizontal lifts or appropriate thickness as prescribed by the soils engineer and watered or aerated as necessary to obtain near-optimum moisture-content.
- Fill materials shall be completely and uniformly compacted to not less than 90 percent of the laboratory maximum density, as determined by American Society for Testing and Materials (ASTM) Test Method D-1557-78, or equivalent test method acceptable to the City Building Department. The project soils engineer shall observe the placement of fill and take sufficient tests to verify the moisture content, uniformity, and degree of compaction obtained. In-place soil density should be determined by the sand-cone method, in accordance with ASTM Test Method D1556-64 (74), or equivalent test method acceptable to the City Building Department.
- Finish cut slopes generally shall not be inclined steeper than 2:1 (horizontal to vertical). Attempts to excavate near-vertical temporary cuts for retaining walls or utility installation in excess of 5 feet may result in gross failure of the cut and may possibly damage equipment and injure workers. All cut slopes must be inspected during grading to provide additional recommendations for safe construction.
- Finish fill slopes shall not be inclined steeper than 2:1 (horizontal to vertical). Fill slope surfaces shall be compacted to 90 percent of the laboratory maximum density by either overfilling and cutting back to expose a compacted core or by approved mechanical methods.
- Foundation systems that utilize continuous and spread footings are recommended for the support of one- and two-story structures. Foundations for higher structures must be evaluated based on structure design and on-site soil conditions.
- Retaining walls shall be constructed to adopted building code standards and inspected by the Building Inspector.
- Positive site drainage shall be established during finish grading. Finish lot grading shall include a minimum positive gradient of 2 percent away from structures for a minimum distance of 3 feet and a minimum gradient of 1 percent to the street or other approved drainage course.

- Utility trench excavations in slope areas or within the zone of influence of structures should be properly backfilled in accordance with the following:
 - (a) Pipes shall be bedded with a minimum of 6 inches of pea gravel or approved granular soil. Similar material shall be used to provide a cover of at least 1 foot over the pipe. This backfill shall then be uniformly compacted by mechanical means or jetted to a firm and unyielding condition.
 - (b) Remaining backfill may be fine-grained soils. It shall be placed in lifts not exceeding 6 inches in thickness or as determined appropriate, watered, or aerated to near optimum moisture content, and mechanically completed to a minimum of 90 percent of the laboratory maximum density.
 - (c) Pipes in trenches within 5 feet of the top of slopes or on the face of slopes shall be bedded and backfilled with pea gravel or approved granular soils as described above. The remainder of the trench backfill shall comprise typical on-site fill soil mechanically completed as described in the previous paragraph.

Impact 4.7-2: Soil Erosion

Threshold: *Would the project result in substantial soil erosion or the loss of topsoil?*

Determination: *Less than Significant*

Soil is naturally eroded by the action of water or wind. In general, such erosion removes soil at roughly the same rate as soil is formed; however soil erosion can be accelerated by natural or human action that strips the soil of its natural cover, leaving land unprotected and vulnerable, and allowing erosive rainfall or wind to detach and transport soil from its original location at a much faster rate than soil creation can compensate for. The potential for erosion is influenced by area climate, topography, soils, and vegetation, as well as agricultural activities and land development patterns that may affect soil conditions. The Project site is located in an area that has been subject to soil erosion due to precipitation, wind, stormwater runoff, and sedimentation.

Loss of Topsoil

Topsoil comprises the top eight to ten inches of soil and provides approximately 80 percent of the nutrients plants need to grow and produce. This upper layer of soil, which contains organic

matter, is most often removed during grading, and either discarded or moved, and mixed with nutrient-poor sub-soils and/or potentially, with imported soils that lack the characteristics of native soils, then compacted such that the post-graded surface is man-made. Compaction reduces the sites ability to absorb water, leading to increased imperviousness, especially in clay soils. The proposed development of the Project site, which includes grubbing and clearing of site vegetation in preparation for mass grading and tract-specific rough grading, has the potential to result in a substantial increase in soil erosion from the Project site, including the loss or degradation of topsoil.

The Project site has been heavily disturbed over the course of many decades through cattle grazing, plowing for farming, and weed abatement activity, etc. Importantly, much of the native topsoil has also been lost or moved due the scour effect of wind erosion over the sparsely vegetated property, a condition that is common in the Pass area. While high quality topsoil is an undoubted resource, the degraded condition of the site and type of proposed use would make the loss of any existing topsoil due to site grading a less than significant impact. Subsequent to site development, the then-existing soils would be amended through hydro-mulching and reseeded to support temporary re-vegetation of the site, and subsequently, to support ornamental landscape. Overall, the post-construction condition of on-site topsoil would be improved as compared to the current or immediate post-grading condition.

Wind and Water Erosion

The Smith Creek Channel and its adjacent flood plain have been profoundly impacted by water erosion. In addition, portions of the site are subject to inundation from precipitation induced surface flows. Wind scour is a serious problem for the site as well. Erosion during and subsequent to site grading could result in a substantial increase in the impacts of sedimentation affecting on-site and off-site drainage courses unless steps are taken to prevent or minimize the loss of soil.

Construction activities (including soil disturbing activities such as clearing, grading, excavating, and stockpiling) that disturb one or more acres, or smaller sites that are part of a larger common plan of development, are regulated under the EPA's National Pollutant Discharge Elimination System (NPDES) and by the fugitive dust regulations of the South Coast Air Quality Management District (SCAQMD). Analysis of wind-induced erosion and mitigation measures for the control of wind erosion are discussed in detail in Section 4.3, *Air Quality*, of this EIR and will not be further addressed in this section; however, efforts to control wind erosion would also be effective in controlling post-grading erosion due to precipitation and surface flows. Section 4.9, *Hydrology and Water Quality*, contains a detailed discussion of the NPDES program, the requirements for a SWPPP, and the provisions of the State's new General Permit requirements. Examples of BMPs that would directly reduce or avoid soil erosion include:

- The use of straw fiber rolls that can be laid across slope faces to shorten slope length, reduce runoff velocity and retain soil or along the perimeter of lots, to retain soil.
- The use of straw mulching to reduce rainfall impact, conserve moisture and moderate temperature to encourage plant growth.
- The use of straw blankets which consist of straw fiber stitched to a single or double netting structure that are photodegradable and are frequently used on slopes and low-flow channels. Straw blankets also provide a growing medium that assists in revegetation.
- Hydroseeding which combines appropriate seed mixes with a binding medium such as hydro-straw which can be utilized to stabilize both slopes and pad areas, enhance revegetation, and collect sediments.

Title 18 of the City's Municipal Code details the City's grading, erosion, and sediment control requirements. In adopting Title 18 the City stated: "Growth and development have created permanent changes to the City's landscape and its natural resources. Open space and naturally vegetated areas have been permanently altered through clearing and grading activities associated with construction and land development. Loss of ground cover, coupled with grading, excavation, and compaction of land contributed to decreased groundwater infiltration, increased storm water flow, erosion and increased sediment runoff into washes, streams and other water bodies (Section 1).²¹

Title 18 implements the mitigation measures for erosion control and sedimentation contained in the City's Comprehensive General Plan EIR, as cited in the "Regulatory Setting" section of this analysis. Pursuant to Chapter 18.15, Article 6, *Erosion and Sediment Control*, projects are required to minimize exposure time of disturbed soil areas, temporarily stabilize and re-seed disturbed soil areas as rapidly as possible, permanently re-vegetate or landscape as early as feasible, and abide by all of the provision of the State's NPDES General Permit for construction activity.

The proposed Project would be required to conform to all of the provisions of the City's Title 18 Grading Standards, the Project's approved SWPPP, and the State's NPDES General Permit; refer to Section 4.9 (*Hydrology and Water Quality*) for a detailed discussion of these requirements, including the installation and maintenance of erosion control BMPs. While vegetation removal and disruption of soil cover by vehicle movement or excavation and grading activities may cause a temporary increase in the potential for soil erosion, implementation of approved BMPs and compliance with the above cited ordinances and permits would ensure that erosion from the site as a result of construction phase activities would be minimized to the MEP standard. As development of the site occurs over time, and structures and landscaping would

²¹ City of Banning Grading Standards, Public Works Department, *Ordinance No. 1388 Grading Manual*, August 13, 2009, pp iii.

increasingly cover the soil, the overall rate of and potential for erosion would be expected to decrease. Grading would be designed to maintain existing drainage flows and slopes would be planted, drained, and maintained to reduce erosion potential.

Following construction, the amount of exposed soil would be significantly reduced by hydroseeding and landscape installation, the introduction of drainage features would control storm water run-off, and the installation and maintenance of site landscape, including slope landscape and implementation of other potential post-construction BMPs, would ensure that post-construction erosion would be less than significant.

The extension of water transmission lines from the Little San Geronio Creek Spreading Grounds, the construction of off-site sewer and recycled water facilities, drainage improvements, and construction of a lift station are not anticipated to result in a substantial loss of topsoil. Ground disturbing activities required for these improvements would be fairly localized and would not require extensive grading, exposure of earthen surfaces, or the potential loss of topsoil. All off-site infrastructure improvements would be subject to erosion control BMPs during construction to minimize the potential for erosion or sedimentation to occur. Following construction of the off-site infrastructure improvements, all affected roadway corridors would be restored to pre-construction conditions, and no exposed surfaces would remain.

Compliance with the requirements of Title 18 for construction phase and post-construction phase erosion and sedimentation control would be ensured by City through its pre-permit plan check process and through inspections during the construction and post construction phase conducted by City staff and, in response to complaints, by representatives of the RWQCB and AQMD. All of these agencies have the ability to enforce compliance through citation, fines, and job shutdowns. With the implementation of existing Municipal Code Title 18 requirements, State NPDES General Permit requirements, installation and maintenance of BMPs pursuant to an approved SWPPP, continuous construction phase inspections, and the post-construction installation of landscape and drainage improvements, as required by the City, Project impacts related to erosion and loss of topsoil would be reduced to a less than significant level and no additional mitigation measures are required.

Impact 4.7-3: Unstable Soils

Threshold: *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as the result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Determination: *Less than Significant with Mitigation Incorporated*

Geologic hazards, such as landslides, lateral spreading, subsidence and liquefaction, are earth processes on the surface that have the potential to cause loss or harm to the community or the environment. The City of Banning and its surroundings are subject to such geologic hazards, due to the geophysical composition of the area. Impacts related to seismically induced landslides and debris flows, lateral spreading, subsidence, and liquefaction have been discussed in preceding impact analyses in this section. While the Project site is traversed by both Banning fault segments, compliance with requirements for building setbacks from the fault zones would ensure that no structures are constructed on unstable geological units. The Project is not located on soil that is unstable or could become unstable as the result of the Project.

The majority of soils materials identified on-site consist of silty sands that generally possess a very low potential for expansion and exhibit moderate shear strength characteristics. Soils that are identified as having very low to low expansion potential are suitable for use as fill, capping of building sites, and construction of fill slopes. Materials with expansion potential greater than low would remain at least three feet below the proposed finish grade elevation, if possible. Removal of soils that are unsuitable for loading is recommended and would be required pursuant to the 2010 CBC and the City's Title 14 grading standards.

When slopes are not properly engineered and constructed manufactured slopes may become unstable. The 2005 *Geotechnical Investigation and Fault Rupture Hazard Investigations* prepared by Geocon include measures and/or stabilization techniques to reduce the potential for damage caused by unstable soils and possible resulting on- or off-site landslide, or slope collapse, although additional study is recommended once 40-scale grading plans are available for the site. This requirement is incorporated into Mitigation Measure GEO-2.

In providing its analysis of slope stability, Geocon assumed that fill slopes would be constructed with on-site soils and are assumed to be stable to a height of 30 feet and a slope of 2:1. Slopes greater than 30 feet in height are currently possible, requiring additional evaluation and preparation of a detailed slope stability analysis once 40-scale grading plans are available. In addition, Geocon notes that if slopes that are steeper than 2:1 are constructed, these may be susceptible to slope instability unless disturbed surficial soils are removed to the extent possible, and irrigation systems and surface drains are properly maintained.

Mitigation Measures

With implementation of grading plans that are consistent with the requirements of the 2010 (or most current) CBC and the City's Title 18 Grading Standards and Title 15 Building Code, and Mitigation Measure GEO-2, the Project's development would not result in significant impacts due to unstable soils or geologic units.

Impact 4.7-4: Expansive Soils

Threshold: *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property or on soils with an expansion index greater than 20 percent?*

Determination: Less than Significant

Expansive soil expands and contracts due to changes in the moisture content of the soil and can cause structural problems through the differential movement of the structure. Depending upon the supply of moisture in the ground, expansive soils can experience changes in volume of up to thirty percent or more. Foundation soils that are expansive will “heave” and can cause lifting of a building or other structure during periods of high moisture. Conversely, during periods of falling soil moisture, expansive soil will “collapse” and can result in building settlement. Expansive soil will also exert pressure on the vertical face of a foundation or retaining wall resulting in lateral movement. Expansive soils that have expanded due to high ground moisture experience a loss of soil strength or capacity, and the resulting instability can result in various forms of foundation damage and slope failure. Swelling and shrinkage cycles typically damage pavement, sidewalks, slab and spread foundations, as well as structures constructed on the ground.

The expansion potential of any particular expansive soil is determined by the percentage of clay and the type of clay in the soil. Soils engineers identify potentially expansive soils by measuring the percentage of fine particles in a soil sample. The American Society of Testing Materials (ASTM D 4829) has published a test method and an Expansion Index to quantify the results of soil testing for expansive potential. The Expansion Index range and potential expansion is 0-20 (Very Low); 21-50 (Low); 51-90 (Medium); 91-130 (High); over 130 (Very High).

In the Banning area, expansive soils are generally associated with areas underlain by older alluvial fan deposits containing argillic (clay-rich) soil profiles. These soils are considered to have moderate expansion potential. The low-lying areas within the City are underlain by alluvial fan sediments composed largely of granular soils. These soils are considered to have very low to moderately low expansion potential. As the majority of on-site materials consist of silty sands that generally possess a very low expansion potential, the Project is unlikely to be adversely affected by expansive soils; however, the soil profile for any particular location may be very unique and soil containing cobble, gravel, and sand may also be expansive depending upon the percentage and type of clay in the tested soil sample. Depending upon weathering patterns and other factors, near-surface soils could be highly expansive while soils at depth may be non-expansive.

Title 18 of the City's Municipal Code defines expansive soils as "any soil with an expansion index greater than twenty as determined by the Expansive Index Tests of the CBC. MC Section 3.11 requires submission of a site-specific geotechnical report prior to the issuance of a permit for any type of site grading. The geotechnical report is required to include identification and recommendations for the treatment of, or design criteria for, any expansive soils that may be present on a given site. Section 5.8 of the Code requires tests for expansive soils performed on soils within four feet of finish grade of any area intended or designed as a location for a building. The Code requires either removal of expansive soils to a minimum depth of four feet below finish grade and replacement with non-expansive soils, or a structural design solution must be provided prior to issuance of building permit.

The proposed Project would be required to conform to all of the pertinent provisions of the City's Title 18 grading standards, and all standards contained in Section 5.8 of the Municipal Code as cited above, including all requirements related to expansive soils. As tracts are developed within the Specific Plan area, site specific geotechnical studies, including those to identify expansive soils on building sites, would be prepared and expansive soils identified and designed for. The City would ensure design compliance through its plan check process prior to the issuance of grading permits and building permits, and would further ensure compliance with the approved grading plans and architectural structural engineering plans and foundation plans through inspections during the course of construction. Certification of compliance with all applicable approved plans by City inspectors would be required prior to the issuance of certificates of occupancy for any structure. With adherence to the provisions of the City's grading standards and building code, as enforced by the City, the potential for adverse impacts due to expansive soils would be less than significant.

4.7.5 CUMULATIVE IMPACTS

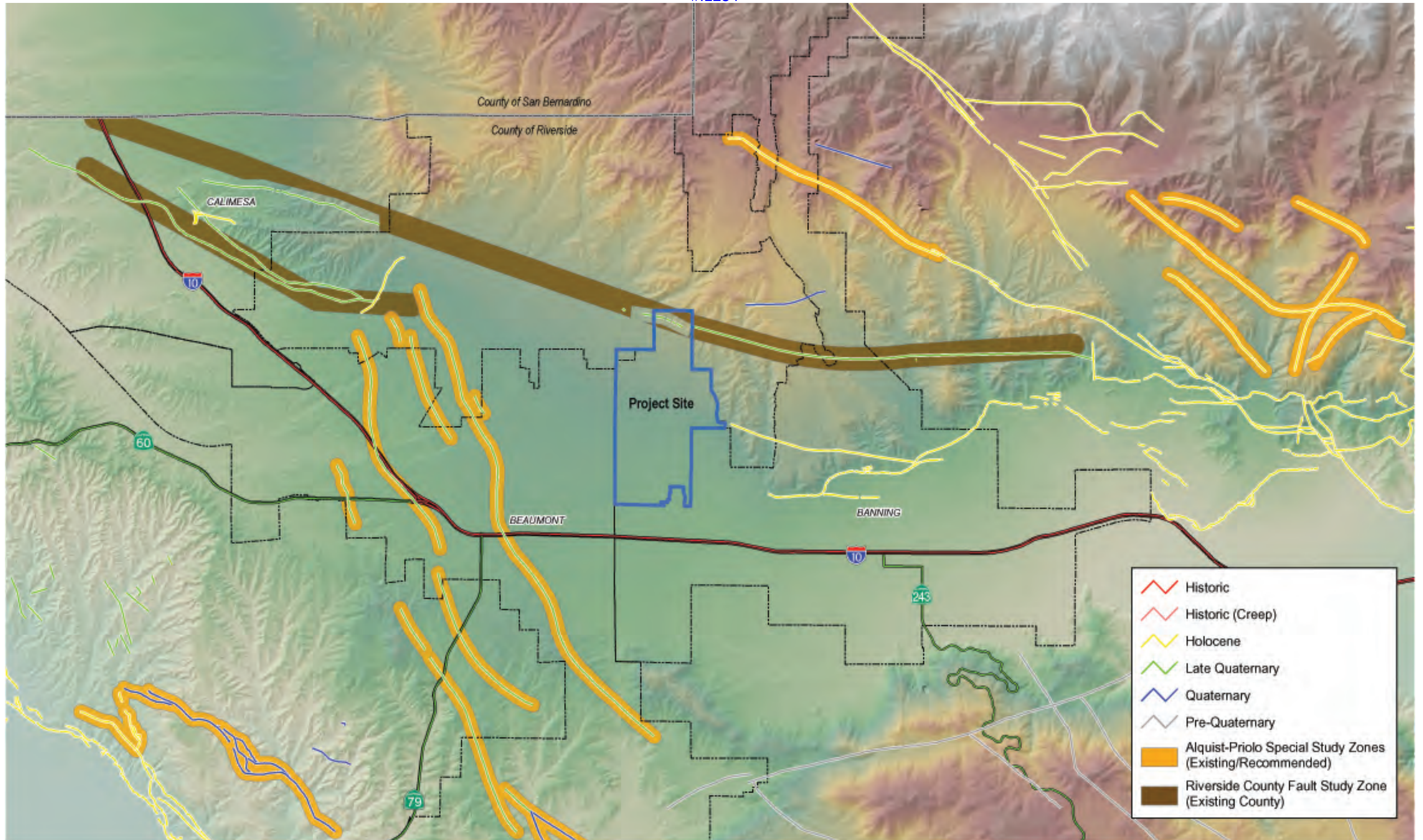
Determination: Less than Significant with Mitigation Incorporated.

The proposed Project is situated in a seismically active region. Implementation of the proposed Project would facilitate the continued urbanization of the region and could expose future residents and structures to geologic and seismic related hazards within the Project area. The General Plan EIR identified these potential hazards and provided mitigation measures which have since been incorporated into the City's Municipal Code, most notably in the newly adopted (2009) Title 18. The adoption and implementation of the provisions of Municipal Code Title 18 ensures that all development projects within the City will be designed and constructed in accordance with the policies, programs, and mitigation measures contained in the General Plan EIR and in conformance with the seismic requirements of the 2010 (or most current) California Residential Code and California Building Code, as well as in conformance with the findings and recommendations contained in the project-specific geotechnical reports (including fault hazard studies, slope analysis, and expansive soils testing) prepared for each individual project.

The General Plan EIR determined that, with the implementation of the above requirements, cumulative geotechnical and soils impacts of the General Plan build-out would be less-than-significant. Since the proposed Project is an amendment and restatement of a previously approved Specific Plan, its build out was considered as part of the General Plan EIR cumulative analysis. All of the requirements noted in the General Plan EIR and all of the requirements contained in Title 18 of the City's Municipal Code would be met by the proposed Project, in addition to Project-specific Mitigation Measures GEO-1 and GEO-3. Accordingly, the proposed Project would not contribute considerably to regional cumulative impacts related to geology and soils.

4.7.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Potentially significant impacts would be mitigated to a level considered less than significant with implementation of Mitigation Measures GEO-1 and GEO-3, and adherence to existing federal, State, and local codes, permits, regulations and ordinances.



SOURCE: Riverside County GIS Data



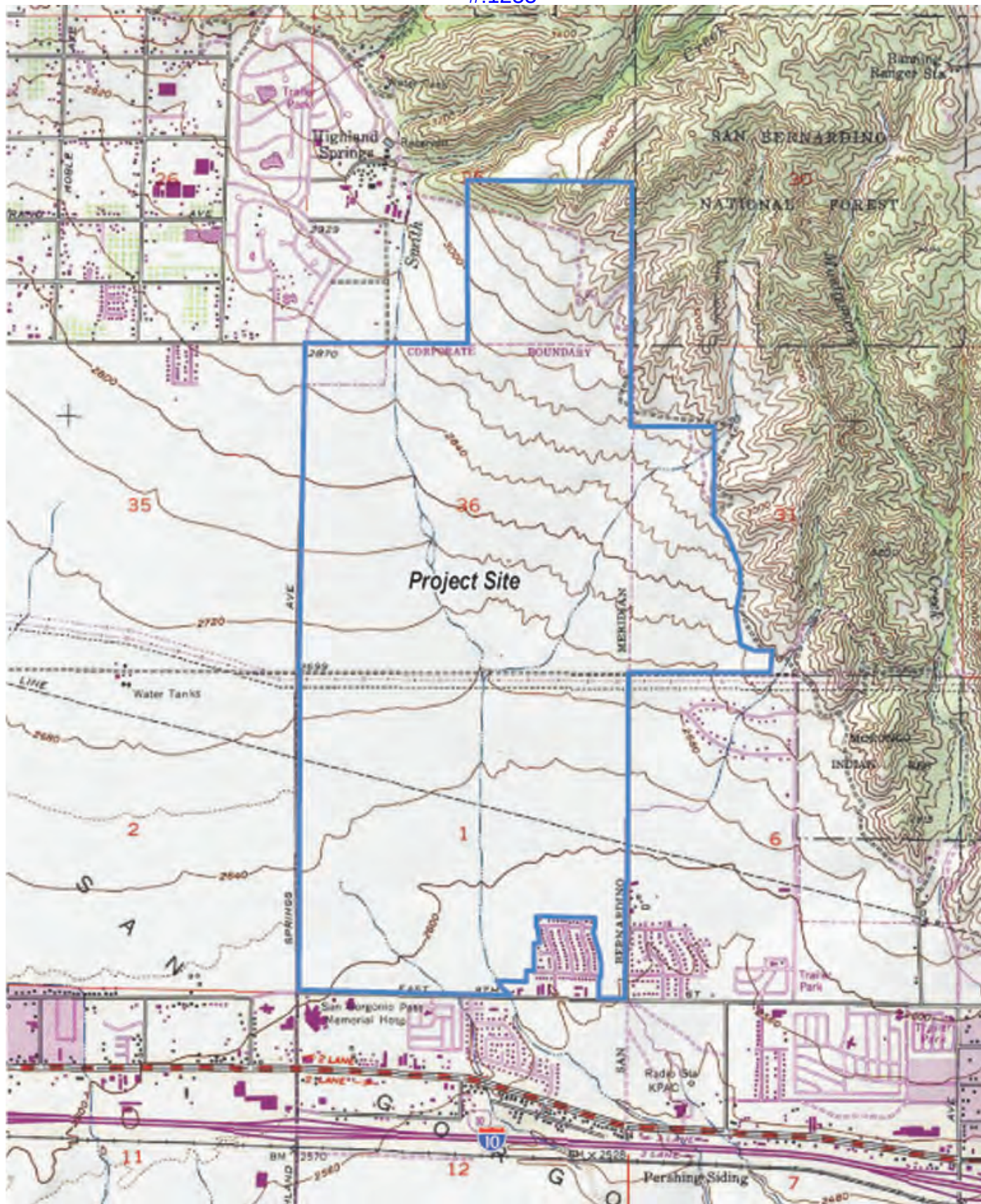
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5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

Regional Fault Zones

AR 003913
EXHIBIT 4.7-1

AR000517



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 2.4)

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

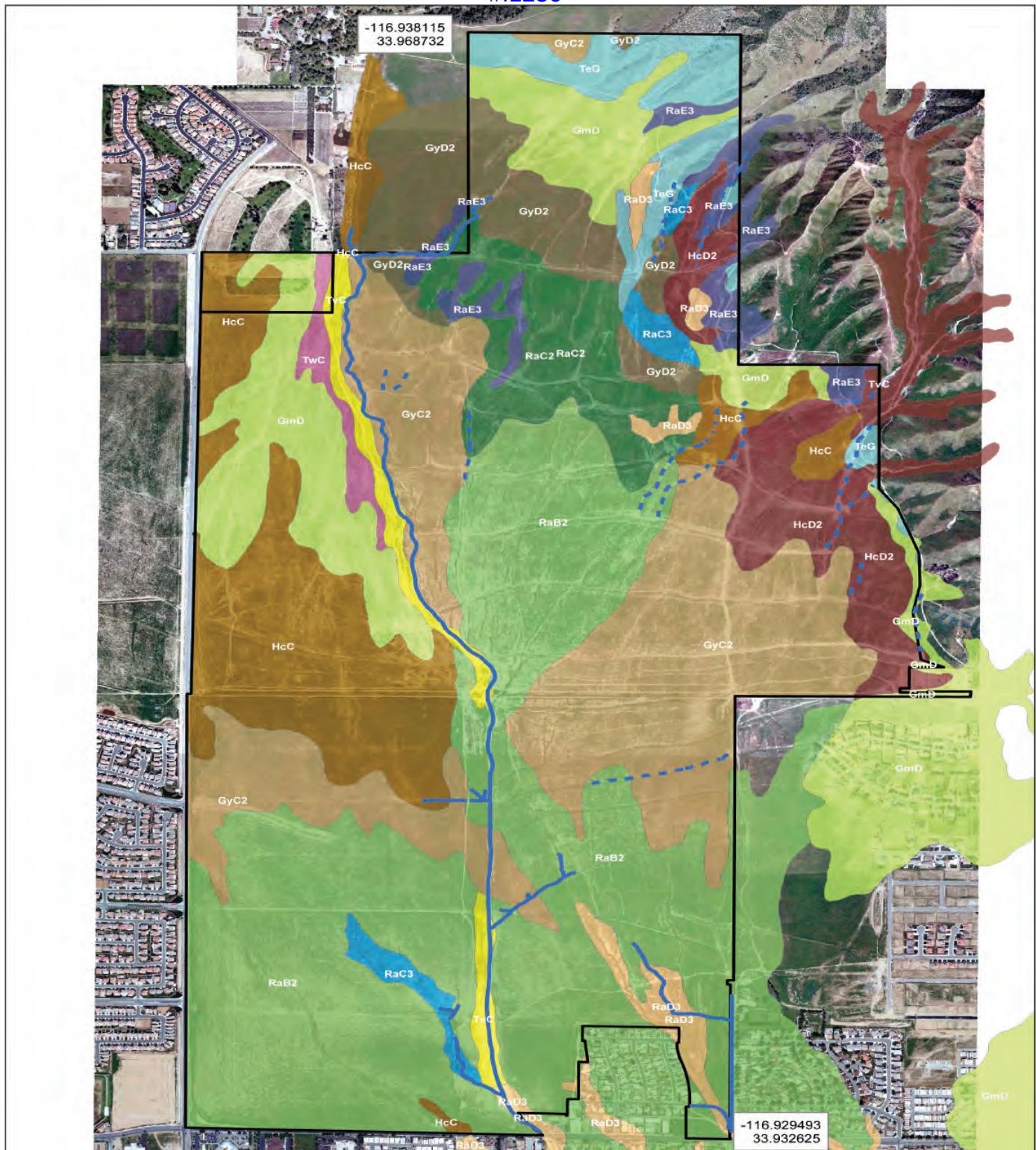


5/27/11 JN: 65-100290

Topographic Map

AR 003914
EXHIBIT 4.7-2

AR000518



Legend

- Project Boundary
- GmD - Gorgonio gravelly loamy fine sand, 2 to 15 percent slopes
- GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded
- GyD2 - Greenfield sandy loam, 8 to 15 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- HcD2 - Hanford coarse sandy loam, 8 to 15 percent slopes, eroded
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaC2 - Ramona sandy loam, 5 to 8 percent slopes, eroded
- RaC3 - Ramona sandy loam, 5 to 8 percent slopes, severely eroded
- RaD3 - Ramona sandy loam, 8 to 15 percent slopes, severely eroded
- RaE3 - Ramona sandy loam, 15 to 25 percent slopes, severely eroded
- TeG - Terrace escarpments
- TvC - Tujunga loamy sand, channeled, 0 to 8 percent slopes
- TwC - Tujunga gravelly loamy sand, 0 to 8 percent slopes

SOURCE: Glenn Lukos Associates, Jurisdictional Delineation August 31, 2010
(refer to Appendix C-2, Exhibit 5)

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

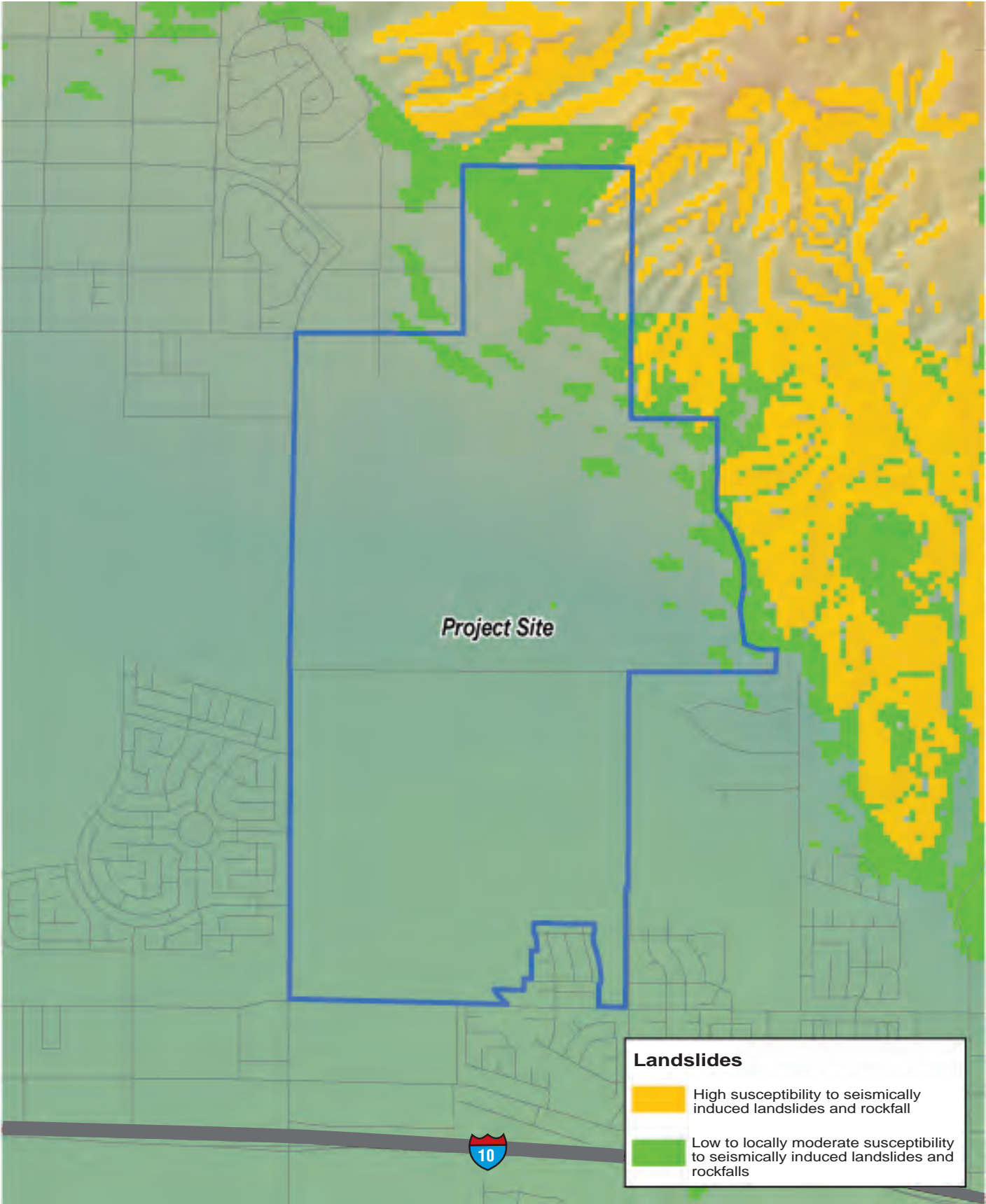


5/27/11 JN: 65-100290

Soils Map
AR 003915

EXHIBIT 4.7-3

AR000519



SOURCE: Riverside County GIS Data



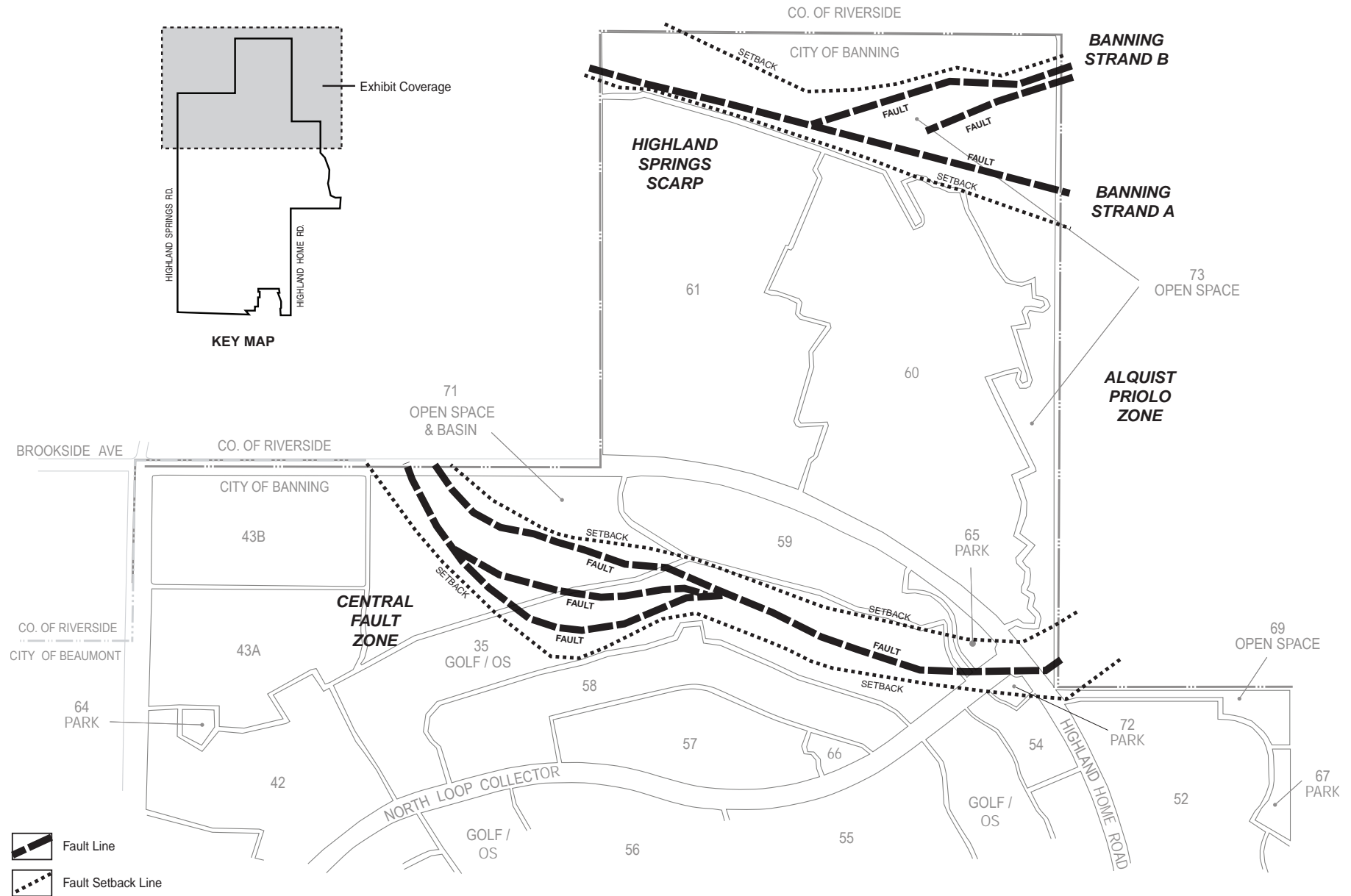
5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

Slope Stability Map

AR 003916
EXHIBIT 4.7-4

AR000520



SOURCE: Douglas Bender and Associates,
Draft TTM No. 35947, Draft TTM No. 35944, 5/19/08



NOT TO SCALE

5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

Fault Setback Zones

AR 003917

EXHIBIT 4.7-5

AR000521

SECTION 4.8

HAZARDS AND HAZARDOUS MATERIALS

4.8.1 INTRODUCTION

This Section identifies and analyzes the potential adverse impacts to human health and the environment due to exposure to hazardous materials or hazardous conditions that could occur as a result of implementation of the proposed Project.

Issues associated with public airports and private airstrips were determined to be “effects not found to be significant” for the proposed Project because the Project is not located within an airport land use plan or within two miles of a public airport or public use airport or in the vicinity of a private airport and is not impacted by airport operations. In addition, potential effects related to EMF (electromagnetic fields) associated with the Project’s existing power lines and proposed power line relocations are regulated by the Public Utilities Commission, and are not anticipated to result in significant environmental impact;¹ refer to Section 7, *Effects Found Not to be Significant*. Potential water quality effects from runoff that could contain hazardous or polluted materials during the Project’s construction phase or operational activities are discussed in Section 4.9, *Hydrology and Water Quality*. Health risks associated with toxic air contaminants that could be emitted during construction and operation of the Project are discussed in Section 4.3, *Air Quality*. Hazards associated with seismic activity, landslides, subsidence, and debris flows are discussed in Section 4.7, *Geology, Soils and Seismicity*.

Information used to prepare this section was derived from a variety of sources including the Phase 1 Environmental Site Assessment prepared for the Project site in 2002 by Converse Consultants; the Converse Consultants Technical Memorandum – Hazardous Materials Review for the 21-acre Added Parcel (March 2007); the Converse Consultants Technical Memorandum for the Butterfield Specific Plan site, which updated the original Phase I ESA (March 2007); the *Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP)*, updated March 2005; the *Riverside County Land Use Compatibility Plan – East County Airports: Banning Municipal Airports and Environs* (October 2004); the *Comprehensive General Plan of the City of Banning* (2005); and the General Plan’s certified EIR. Full bibliographic

¹ The State of California recommends a 100-foot setback from 66kv lines, which do not affect proposed school sites (<http://www.cashnet.org/news/article.esiml?id=340>). Although there are no officially adopted EMF exposure limits for residential, various agencies have proposed or are considering EMF regulations. For example, the International Commission on Non-Ionizing Radiation Protection recommends that the general public not be exposed to magnetic field levels above an average of 833 milliGauss (mG). In contrast, the average magnetic field level found in U.S. homes is approximately 1 mG. Field levels within inches of some appliances can range in the 10’s or 1000’s of mG and diminish to below 1 mG within a few feet. Field levels directly underneath larger transmission line are often below 100 mG under normal operating conditions (<http://www.sce.com/Safety/everyone/electric-magnetic-fields.htm>). The CPUC has not set specific reduction levels for EMFs, pending a scientific basis for doing so (<http://www.cpuc.ca.gov/PUC/energy/Environment/ElectroMagnetic+Fields/>).

references can be found in Section 9.0, *Bibliography*. All of the above referenced Converse Consultant reports can be found in Appendix F, *Hazardous Materials Assessment*.

4.8.2 EXISTING CONDITIONS

4.8.2.1 ENVIRONMENTAL SETTING

On-Site Physical Setting

The Project site consists of 20 whole parcels and portions of two others², which together contain approximately 1,543 acres of undeveloped land. Portions of the Project site have been used in the past for both dry and irrigated farming and continue to be used for cattle grazing. The site topography ranges from flat to gently rolling foothills, with steeper slopes and more rugged topography in the site's northeastern corner. Site vegetation consists primarily of non-native grasses with mixed chaparral in the higher elevations. Smith Creek, a natural ephemeral watercourse, traverses the central portion of the Project site, is dry during most of year, and supports limited vegetation along its banks. A portion of the northern boundary of the site is formed by the San Bernardino National Forest. Undeveloped properties with similar vegetation and prior/current uses are also located adjacent to the site. The site has frontage on, and can be accessed from, Wilson Street, Highland Springs Avenue and Highland Home Road.

On-Site Utility Easements

A 16.5-foot wide Southern California Gas Company easement, which contains a 30-inch diameter buried high-pressure natural gas line, owned and managed by SCG, traverses the site diagonally through from the west center site boundary to the site's southeast corner at a depth that ranges from 12 feet bgs at the west end of the Project site to 4 feet bgs at its east end. The increased population density along the pipeline route that would result from implementation of the Specific Plan would change the pipeline's "class location designation" as established by the Public Utilities Commission (PUC), which would require that the pipeline be operated at a lower pressure or replaced with residential grade pipe. The Gas Company has replaced approximately 600 feet of on-site pipeline with residential grade pipe on both the east and west sides of the on-site easement in connection with the upgrading of its pipeline through adjacent development; however, the majority of the pipeline through the site is not residential grade and would need to be replaced when the site is developed.

Three sets of power lines traverse the Project site from east to west within a central Southern California Edison corridor that is comprised of two separate easements: a 330-foot wide south easement and an adjacent, north easement that is approximately 100 feet wide. The south easement contains 80-foot high steel frame transmission towers that carry single circuit (three

² Prior to the recordation of Subdivision Map 34330 the project site consisted of 8 parcels, which is reflected in the Deutsch Specific Plan EIR. New Assessor's Parcel Numbers have been assigned to the 22 individual parcels.

lines per circuit) lines. The south easement also contains a second set of transmission lines consisting of steel frame towers approximately 120 feet in height carrying double circuit lines. The north easement is occupied by a set of single circuit power lines strung on 65-foot high wood H-frame dual poles. All circuits are 220 kV. A 50-foot wide SCE easement containing 115KV lines strung on wooden poles is located in the northwestern portion of the site. Overhead 12 kV distribution lines are located adjacent to existing residential development on the north side of Wilson Avenue.

An electrical substation is located on the Project site, near its east boundary, at the end of the improved segment of Highland Home Road. The substation was originally a part of the Deutsch Banning Specific Plan project but is not included as a part of the proposed Butterfield Specific Plan as it has already been constructed and is operated by the City of Banning.

Relocation of a portion of the natural gas pipeline and the replacement of the entire line within the Project site with residential-grade pipe, and the relocation of the existing SCE 115kv transmission line alignment are proposed as part of the development; refer to Exhibits 3.0-6A, 3.0-6B, and 3.0-6C (*Utility Relocation*).

Illegal On-Site Dumping

Field surveys of the Project site conducted by Converse Consultants (2007) as part of the Phase I ESA and ESA Update indicate that some illegal dumping of asphalt, automotive parts, tires, and other related debris has occurred. The updated Phase I ESA (2007) also indicated that none of these debris piles appear to contain toxic materials in any appreciable quantity. The Cultural Resources Assessment (LSA 2006) noted a refuse deposit on the site located at the edge of a ravine that contained a mix of debris containing such things as glass bottles, a clothes washing machine from the 1920's and a spring from a horse-drawn wagon. None of the debris scatter identified by LSA appeared to contain toxic elements.³

Physical Setting of Proposed Off-Site Improvement Alignments

Implementation of the proposed Project would require construction of water, wastewater, reclaimed water, and drainage infrastructure improvements in and around the City of Banning. Most of the proposed water, wastewater, and reclaimed water conveyance pipelines are proposed for construction within existing improved public right-of-way; however, a pump station is proposed on a privately owned parcel located at the corner of Omar Street and Ramsey Street; refer to Exhibit 3.0-9, *Off-Site Infrastructure*.

³ LSA, Cultural Resource Assessment and Historic Evaluations, Deutsch Property Specific Plan, April 12, 2006, LSA-PDH0601-H-2 debris scatter, p13 (EIR Appendix D – Cultural Resources Reports)

Off-site sewer improvements for the Project may include installation of approximately 22,400 linear feet of off-site sewer main if the proposed alternative on-site satellite treatment plant is not constructed. If required, off-site sewer would be installed in portions of Wilson Street, Omar Street, Ramsey Street, Sunset Avenue, Lincoln Street, and San Gorgonio Avenue, all of which are existing paved public streets; refer to Exhibit 3.0-13, *Off-Site Sewer Plan*. In addition, if the on-site satellite treatment plant is not constructed as part of the Project, an off-site recycled water main as much as 29,300 linear feet in length may be constructed in portions of Highland Home Road, Wilson Street, Sunset Avenue, Lincoln Street, Hathaway Street, and Charles Street, all of which are existing paved public streets.

The Project may also propose to construct a water conveyance pipeline from the existing State Water Project (SWP) pipeline turn-out at the Little San Gorgonio Creek Spreading Grounds, which would be extended up to 13,900 linear feet to the northwest corner of the Project site. Possible alignments for this connection could include portions of Noble Street, High Street, Cherry Avenue, Bellflower Avenue, and Brookside Avenue; refer to Exhibit 3.0-12, *Off-Site Recycled Water*. The existing Smith Creek drainage culvert under Wilson Street may also require improvement as part of the Project.

Historic Site Usage

Historically, the Project site has been used intermittently for agricultural purposes that included cultivation of wheat and cattle grazing. Irrigation of agricultural land on the site ceased in 1982 and dry (e.g., non-irrigated) farming ceased in 1989, through cattle grazing continues through the present⁴. In its Phase I ESA, Converse Consultants did not identify any concerns with, or residual effects from, any potential past use of herbicides or pesticides in connection with site cultivation; refer to Section 4.2, *Agricultural Resources*, for a more detailed review of historic agricultural uses.⁵

Aerial photographs of the site dated 1949, 1962, 1974, 1980, 1984, and 1990 were reviewed as part of the Phase I ESA research and indicate that development of the area around the Project site started in the early 1970's and proceeded slowly until 2000. Subsequent development of residential and commercial uses, including a hospital at the southeast corner of Highland Springs Avenue and Wilson Street, intensified between 2000 and 2007; refer to Table 4.8-1, *Historical Land Uses of the Project Area*, and the *Phase I Environmental Site Assessment Report*, located in Appendix F. There is no evidence cited in the Phase 1 Environmental Assessment (Converse Consultants, March 2007) of historic land uses on or in proximity to the site that would suggest potential for hazardous substance/waste contamination. According to the ESA, there is no record of any Underground Storage Tanks (USTs) on-site at any time, or any record of prior storage and/or maintenance of diesel or gasoline powered farm equipment on the site,

⁴ 1992 Draft Deutsch Banning Specific Plan EIR, SCH90020698 Agriculture Resources p 49

⁵ 1992 Draft Deutsch Banning Specific Plan EIR, SCH90020698 Agriculture Resources p 49

although a diesel engine of unspecified type and use was found on a concrete pad that contains an abandoned well.

The 21-acre off-site parcel (PA 43B) was also used historically for dry farming of wheat and/or cattle grazing until 1984, when it was developed as a golf course. The *Cultural Resources Report* prepared by LSA notes that the general area of the Project site may have been used for cattle grazing as far back as the California Mission period.

Table 4.8-1
Historical Land Uses of the Project Area

Year	Site Land Use	Surrounding Land Uses
1949	Undeveloped land	Undeveloped land dominates the land uses surrounding the Project site. Dry and irrigated farming and cattle grazing on-site.
1962 and 1974	Undeveloped land	Residential properties and a commercial building to the south, beyond Wilson Street. Otherwise, no significant changes from the 1949 photograph. Dry farming and irrigated farming and cattle grazing occurring on-site.
1980, 1984, 1988, 1990	Undeveloped land	No significant changes from the 1974 photograph with the exception of additional residential uses in the vicinity of the Project site. Irrigated farming ceased in 1982. Dry farming of the site ceased in 1989. Cattle grazing occurring on-site.
Source: Converse Consultants Phase I Environmental Assessments (2002 and 2007).		

4.8.2.2 HAZARDOUS MATERIALS

Definitions

Chapter 6.5 of the *California Health and Safety Code* sets forth definitions and regulations related to hazardous materials management and disposal. The Code defines hazardous materials as:

“[Any material] that, because of its quantity, concentration or chemical characteristics, poses a significant present or potential hazard to human health or safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing would be injurious to the health

and safety of persons or harmful to the environment if released into the workplace or the environment.”

Hazards versus Risk

The health of workers and the general public are potentially at risk whenever hazardous materials have been used, or where exposure to such materials could occur. Inherent in the setting and analysis presented in this section are the concepts of the “hazard” presented by these materials and the “risk” they pose to human health.

The level of *risk* to human health in a given environment is determined by the probability of exposure to a hazardous material and the severity of harm such exposure would pose. Therefore, a determination regarding the degree of risk takes into account the likelihood and means of exposure as well as the inherent toxicity of a material or hazard presented by a specific condition.

Responsible Agencies

Various regulatory agencies, such as the United States and California Environmental Protection Agencies (EPA and Cal EPA), the California Water Resources Control Board (SWRCB), the California Department of Toxic Substances Control (DTSC), and the State and federal Occupational Safety and Health Administrations (OSHA and CalOSHA) are responsible for developing and/or enforcing risk-based standards to protect the public and the environment from hazards posed by hazardous materials. The California Department of Forestry and Fire Protection, Office of the State Fire Marshall, Pipeline Safety Division is responsible for developing and/or enforcing standards for natural gas and petroleum product pipelines. Additional responsible agencies include the Santa Ana and Colorado River Basin Regional Water Quality Control Boards (RWQCB), South Coast Air Quality Management District (SCAQMD), and Riverside County Community Health Agency, Department of Environmental Health (DEH).

Phase I Environmental Site Assessment – Records Search

In preparing its initial (2002) Phase 1 Environmental Site Assessment (ESA) and subsequent update (2007), Converse Consultants conducted a search of available environmental records to identify listed hazardous sites within the Project site boundaries or within a 0.25-2.0 mile radius of the Project site. Converse Consultants also contacted the following government agencies regarding the Project site:

- California Environmental Protection Agency (CalEPA)
- Department of Toxic Substances Control (DTSC)

- Santa Ana and Colorado River Basin Regional water Quality Control Boards (RWQCB)
- California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR)
- California Department of Forestry and Fire Protection (CDFP), Office of State Fire Marshall (OSFM), Pipeline Safety Division
- South Coast Air Quality Management District (SCAQMD)
- Riverside County Community Health Agency, Department of Environmental Health (DEH)

According to the above referenced agencies there is either no information on file for the Project site and/or there are no reasonably ascertainable files due to a lack of property addresses. The Project site was not identified on the Environmental Database Report of Standard Environmental Record Sources (EDR).

The following adjacent properties containing underground storage tanks (USTs) were identified on the EDR:

- Highland Springs Resort, located adjacent to the northwest of the Project site, was identified as a Statewide Environment Evaluation and Planning System (SWEEPS) Underground Storage Tank (UST) site. Although the facility operates a 280-gallon UST containing gasoline, no violations or leaks have been reported for the facility.
- Loma Linda Oil Company was also identified near the Project site, approximately 1/8 miles south of the southwest corner of the property. This facility is identified as a Leaking Underground Storage tank (LUST) site, Historic UST site, and a Facility and Manifest Data (HAZNET) site. According to the report, only soil was impacted by the LUST. No violations have been reported for the facility.

In addition, a records search on ENVIROSTOR identified two school clean up sites located near the Project site. Although the school sites were identified, no further action was required. These two sites are:

- **Community Day School No. 1**, located south of the Project site in the Beaumont Unified School District was historically utilized for agricultural purposes and potential contaminants of concern include Arsenic, Chlordane, DDD, DDE, and DDT. However, DTSC approved the Preliminary Endangerment Assessment Report with a “no further action” determination as of 2/14/2002. (ENVIROSTOR ID 33010034, Site Code 404202).
- **Sundance Elementary School**, located west of the Project site in the Beaumont Unified School District was historically utilized for agricultural purposes, but most likely only dry farming. Potential contaminants of concern include Arsenic, Chlordane, DDD, DDE,

and DDT; however, as of 8/5/2004, no further action was needed (ENVIROSTOR ID 33010093, Site Code 404560).

Several other off-site locations, including unmapped sites or “orphan sites” of environmental concern, were identified by the EDR and included USTs, former hazardous materials release sites, LUSTs, and hazardous materials generators. According to the Converse reports, the potential for environmental impact to the Project site from these off-site locations of concern appears to be low due to one or more of the following factors: type of regulatory listing; distance from the subject property; location with respect to the direction of regional groundwater flow; status of the case; and/or remedial efforts being directed by a regulatory agency.

The EDR report listed twenty-three LUSTs in the region, which were reviewed to determine their potential to impact the Project site. Most were undergoing preliminary evaluation or had been signed off either because they did not require remediation or because remediation had been completed. Accordingly, the potential for environmental impact to the Project site from these off-site locations of concern appears to be low.

Overall, the potential for adverse impacts to the Project site from hazardous materials or uses located on adjacent or nearby properties would be considered low either because of the type of regulatory listing and/or because there have been no reported violations or spills at any location of potential concern, with the noted exceptions of the previously identified on-site SCG natural gas pipeline and the SCE easement transmission lines.

Phase I Environmental Site Assessment – Interviews

Interviews of the property owner’s representatives revealed the past use of the property was primarily cattle grazing. No information or knowledge was known about the following items:

- Previous environmental site assessment or audit reports;
- Environmental permits or hazardous waste generator notices/reports;
- Above- and underground storage tanks;
- Septic systems, oil wells, or water wells;
- Material Safety Data Sheets; Community Right to Know Plans; Safety, Preparedness and Prevention Plans; and Spill Protection Countermeasures and Control Plans;
- Knowledge of pending, threatened or past proceedings or notices from governmental entities regarding violation, liens, and hazardous substances, or petroleum products; and
- Environmental problems with adjacent or vicinity locations.

Converse did not identify any issues of environmental concern to the City’s Community Development Department. The Deutsch Banning Specific Plan EIR (1992) indicates that the

majority of the project site was at one time under Williamson Act contract and that the southern portion of the site had been cultivated for wheat production prior to 1988; however, there is no record in the documents examined by Converse to indicate whether herbicides or pesticides were used.⁶ Based on its records search and field investigation Converse Consultants concluded that prior agricultural uses did not result in adverse environmental conditions on the Project site.

Phase I Environmental Site Assessment – Site Reconnaissance

A site reconnaissance was conducted as part of both the 2002 and 2007 Phase I Environmental Site Assessments and included a visual observation of the site and surrounding properties. The objective of the site reconnaissance was to identify recognized environmental conditions (RECs), including hazardous substances and petroleum products, that might be visibly discerned on the property and that could impact soils, surface waters, and/or groundwater, and to identify any hazardous condition that might not be identified in a records search. Reports documenting both the 2002 and 2007 site reconnaissance confirmed that there are no structures on the property and that most of the property is vegetated with low-growing shrubs and non-native grasses on fairly flat terrain. Both reports identify barbed wire fencing on all sides of the Project site and indicated that the property was being used for cattle grazing; however, the updated 2007 Technical Memorandum listed a number of facilities and conditions that had not been identified in the original 2002 ESA. These included the following:

- A water well in the southern portion of the Project site, which appeared to be abandoned and in poor condition. **Potential Environmental Concern:** *Unless the well is properly capped it could provide a route for the migration of surface contaminants, including nitrates and bacteria from cattle waste, into the ground water.*
- Five damaged automotive batteries and a diesel engine used to power the well pump, located on a concrete pad that was also occupied by a well pump. No fuel sources were observed near the tank, nor were any stains observed on the ground surrounding the well. **Potential Environmental Concern:** *Potential ground contamination by battery acid, petrochemicals, etc.*
- A 12-inch steel pipe, approximately 100 feet in length, on the ground surface running to the northeast from the above cited well. In addition, several metal pipelines are observed across the property. The pipes in two locations were capped at the surface and ran beneath the ground. **Potential Environmental Concern:** *Unless properly abandoned, pipelines may provide a transmission route for nitrates and bacteria into groundwater.*

⁶ Technical Memorandum – Hazardous Materials Review, Converse Consultants, March 12, 2007.

- Several small piles of asphalt debris, automotive tires, and automotive parts were identified near the northwest corner, center, and south center portions of the Project site. No stains were observed around the debris piles. **Potential Environmental Concern:** *It is possible that asphalt debris, automotive tires, parts and other potential, unidentified debris could result in soil contamination at the debris pile location.*
- Markers indicating the presence of a high-pressure natural gas pipeline, managed by the Southern California Gas Company, traversing the Project site diagonally from the west center to its southeast corner. The presence of the pipeline is also noted in the Deutsch Banning Specific Plan Draft EIR. No leaks were evidenced by the presence dead plant material nor were odors indicating potential leaks detected in the course of the field survey. **Potential Environmental Concern:** *Natural gas transmission lines transport flammable and explosive material under pressure. Escaping gases due to rupture, punctures, or leaks could accumulate in enclosed spaces; a source of ignition could cause an explosion.*
- High-tension power lines, managed by Southern California Edison (SCE), traverse the central portion of site from east to west. No stains were observed beneath the power lines towers. **Potential Environmental Concern:** *Electro-magnetic fields, leakage of transformer oil from pole mounted transformers resulting in ground contamination.*
- One SCE-owned pad-mounted transformer was observed near the south-center portion of the Project site. The transformer appeared to be in good condition and no leaks or stains were observed on the ground. **Potential Environmental Concern:** *Leakage of transformer oil resulting in ground contamination.*

No suspect asbestos-containing materials or lead-based painted components were observed in the course of field work.

4.8.2.3 WILDFIRE

Urban-Wildland Interface (UWI) Fire Areas

A wildfire is defined by statute in California as any uncontrolled fire spreading through vegetative fuels that threatens to destroy life, property, or resources. Wildfires are a significant hazard throughout the western United States and many areas of southern California are susceptible to wildfire due to the region's weather, topography, and native vegetation. Though wildland fire is a natural process and a necessary part of the natural ecosystem of southern California, it becomes an issue when development extends into previously vacant lands where wildland fire hazard may exist, creating an interface area between wildlands and urban development. Wildfires in these areas, referred to as the urban-wildland interface areas or UWI areas, can present hazards to life and property. *Chapter 49, Section 4901, Definitions, of the 2010 California Fire Code* defines Urban-Wildland Interface Fire Areas as a "geographical area

identified by the State as a "Fire Hazard Severity Zone" or other area designated by the enforcing agency to be at significant risk from wildfires." The State Fire Marshal and State Board of Forestry (BOF) and the California Building Standards Commission develop and enforce Codes and regulations related to fire prevention and response, including those related to wildfire and urban/wildland interfaces, and assist local jurisdictions in implementing those standards and practices. Chapter 49 of the *2010 California Fire Code* contains the State's requirements for Urban-Wildland Interface Fire Areas. The *2010 California Residential Code* and *2010 California Building Code* also contains fire safety requirements for structures, including those located within defined UWI areas.

Historic Impacts of Wildfire

According to records maintained by the California Department of Forestry and Fire Protection, a large portion of the Banning area has burned, often repeatedly, since the early 1900's, including the area adjacent to the north and east of the Project site and the northern and eastern portions of the Project site itself. Many of the historical fires that have been recorded in this area burned thousands to hundreds of thousands of acres and these same areas are at risk of burning again. Portions of the Banning region and surrounding areas to the north, south and east include grass- and brush-covered hillsides with significant topographic relief that facilitate the spread of fire, especially if fanned by winds that are accelerated through the San Geronio Pass. Alternating periods of heavy El Nino rains followed by lengthy droughts frequently result in both significant grass crops and heavy dry season die-off, providing a condition of elevated risk of wildland fire in this area.

Fire Protection Services

The City of Banning contracts with the Riverside County Fire Department for fire protection services. In general, when dealing with wildland fires, the Banning Fire Services Unit of the County Fire Department coordinates its operations with the California Department of Forestry and Fire Protection; however, a number of different agencies have jurisdiction over all or portions of the Banning's wildfire-prone areas. These include the State Department of Forestry and Fire Protection, the County of Riverside Fire Department, and the City of Banning. Each agency designates fire-prone areas in or near the municipal boundaries; each defines the degree of hazard in any given area somewhat differently; and each imposes specific requirements and enforces sometimes varying regulations regarding development in UWI areas.

Riverside Unit Pre-Fire Management Plan

In 2005, the California Department of Forestry and Fire Protection prepared the *Riverside Unit Pre-Fire Management Plan*. The overall goal of the Plan is to reduce total government costs and citizen losses from wildland fire in the Riverside Unit by protecting assets at risk. The City of

Banning is one of the government stakeholders that participated in the assessment and planning process precedent to the preparation of the Pre-Fire Management Plan.

UWI Fuels and Local Assets at Risk

UWI fuels are broken down into two types: structural and vegetative. According to the 2005 Riverside Unit Fire Management Plan,⁷ the City of Banning is served by Riverside Battalion 3. The vegetative fuels listed for Riverside Battalion 3, which serves the City of Banning, are widely varied, and include grass, coastal sage scrub, chamise, Russian Thistle, and scrub oaks. The assets at risk (i.e., structural fuels) within the Battalion 3 area are predominately residential and recreational.

Requirements for the Mitigation of UWI Hazards

Requirements for the mitigation of hazards created by wildfire are contained in numerous Codes and regulations adopted and enforced by State, regional, and local agencies. These include:

- 2010 California Building Code Chapter 7A (*Materials and Construction Methods for Exterior Wildfire Exposure*) and associated CBC Ch7A Compliance Policies issued from time to time by the Office of the State Fire Marshall;
- 2010 California Residential Code, Section R327
- 2010 California Fire Code Chapter 49 (*Requirements for Urban-Wildland Interface Fire Areas*);
- The California Reference Standards Code Chapter 12-7A
- Title 14 (*Natural Resources*) California Department of Forestry & Fire Prevention Subchapter 2 (*SRA Fire Safe Regulations*) adopted by the California Board of Forestry; ;
- Public Resource Code 4291
- 2006 State Board of Forestry and Fire Protection *General Guidelines for Creating Defensible Space ("the Guidelines")*;
- Riverside County Fire Department (Banning Services Unit) *Standard Fire Department Requirements for "Fuel Modification Zones" and Construction Improvements for Projects in or Adjacent to Wildland Areas*;
- *Safety Element* of the City of Banning Comprehensive General Plan;
- 2005 *Riverside Unit Pre-Fire Management Plan* (BOF); and

⁷ California Department of Forestry and Fire Protection, Riverside Unit, *Riverside Unit Fire Management Plan* 2005, Assets at Risk Assessment – Battalion 3 (Beaumont) pp 14.

- City of Banning Municipal Code Title 8.16 (*Fire Prevention Code*) as amended by Ordinance No. 1421 (adopted December 14, 2010)

All of these are discussed in greater detail below in Section 4.8.2.2, *Regulatory Framework*.

Fire Hazard Areas – Definitions by Jurisdiction

The California Fire Plan (e.g., *Fire and Resource Assessment Program*) was established in 1996 and uses four main criteria to rank the fire hazard potential of the wildland areas of the State. The criteria are fuels, weather, assets at risk, and level of service. Fire hazard areas in the Banning Study Area were mapped by the California Department of Forestry and Fire Protection as part its Fire Hazard Severity Zones (FHSZ) mapping program, and this mapping provided a key source for Exhibit V-10 in the City's General Plan Environmental Hazards Section. The Assessment Program's designations are graduated and include: (1) very high; (2) high; (3) moderate; (4) urban/non-zoned; and (4) no fuel or non-burnable open space.

The State's FHSZ mapping project specifies the criteria used to determine the various levels of fire hazard in urban/developed areas as follows:

- ***Moderate fire hazard severity zones*** are developed/urbanized areas with a very high density of non-burnable surfaces including roadways, irrigated lawn/parks, and low total vegetation cover (less than 30 percent) that is highly fragmented and low in flammability where wildland areas are removed by at least 0.5 mile or, if closer, only present modest fire hazards.
- ***High fire hazard severity zones*** include developed/urbanized areas with moderate vegetation cover and more limited non-burnable cover. Vegetation cover typically ranges from 30-50 percent and is only partially fragmented so that short-range lateral fire spotting by firebrands could breach fuel breaks and allow for some areas to spread as flame fronts. These areas lie midway between classic urbanized areas dominated by homes, roadways, and low flammability vegetation cover and those developed areas where fuels are dense and continuous.
- ***Very high fire hazard fire severity zones*** are defined as developed/urban areas with high vegetation density (at least 70 percent cover) and associated high fuel continuity that would allow for flame spread over much of the ear with little impediment. Developed areas may have less vegetation cover and still be in this class when located within a quarter mile of wildland areas zoned as very high fire hazard areas.

- *No fuel/non burnable open space* is defined as areas associated with nonflammable conditions including agricultural lands (excluding rangelands) and barren rocky areas.⁸

Exhibit 4.8-1, *Wildfire Susceptibility Map* shows the State Assessment Program designations for various portions of the proposed Project site and includes areas designated as no fuel, high, and very high fire hazard severity zones. The “no fuel” designation covers those portions of the site previously in agricultural production, which included irrigated fields until irrigation stopped in 1982, and areas adjacent to fully improved streets with access to water and limited vegetation coverage. Areas of the site designated as “High” fire hazard severity zones include portions of the site used for cattle grazing, vegetated by grasses with a better than 50 percent coverage, located within ¼ mile of areas designated as “Very High” fire hazard severity zones, and lacking in on-site roads or water infrastructure. Also included are grassland areas adjacent to existing occupied structures located on Wilson Street and Highland Home Road, as these areas are also located within ¼ mile of “Very High” fire hazard severity zones. Those portions of the site designed as “Very High” fire hazard severity zones include moderate to steep hillside areas with heavy vegetative coverage, including grassland and chaparral in the higher elevations. The most northerly and easterly portions of the site within the “Very High” fire hazard severity zone include rugged, heavily brushed terrain extending from the Banning Bench area into the site.

In addition to its FHSZ mapping program, Cal Fire annually publishes a map depicting its “recommended” Very High Fire Hazard Severity Zone” (VHFHSZ) locations. These include lands which are State responsibility areas (SRA) and local responsibility areas (LRA). The map differentiates between VHFHSZ and Non-VHFHSZ. It does not identify fire hazard zones that are less than *very severe* based upon the Cal Fire analysis described above. A small portion of the most northerly quarter of the Project site has a 2010 Cal Fire VHFHSZ designation. In addition, adjacent properties located north and northeast of the site, which consist of undeveloped, chaparral covered wildlands, also have VHFHSZ threat designations due to the presence of surface fuel, steep and mixed topography, and climate/weather patterns that include the high winds characteristic of the Banning area and dry fuel moistures. In these areas “burn frequency” has been historically high.

The Riverside County Fire Department also defines wildfire hazard zones. The County’s moderate hazard zone includes areas that exhibit moderate relief at the interface with the more developed areas of the City, and/or undeveloped or partially developed areas where grasses predominate. Areas covered by this standard could include the southern and western portions of the site including areas designated as “high” fire hazard severity zones by CalFire, as well as portions of the area designed as “no fuel,” since agricultural production has ceased and a grassland vegetation cover is currently present. The Riverside County Fire Department Banning Services Unit, which serves the City of Banning, applies its UWI Standards to any property that

⁸ Definitions are taken from the Cal Fire Guidelines for Fire Hazard Zoning Review and Validation, http://www.frap.fire.ca.gov/projects/hazard/FHSZ_review_instructionsv1_3b.pdf, accessed 12/9/2010.

abuts open space or a grass-covered vacant lot and has indicated that those standards will be applied to development within the Specific Plan as individual subdivisions are implemented, where Department UWI criteria are met in the interim as well as built-out conditions.

The City's definition of "Hazardous Fire Area" is the broadest of all of the applicable designations. Pursuant to the *City Municipal Code, Title 8, Chapter 8.16 (Fire Prevention Code)*, a Hazardous Fire Area is defined as:

"Land other than a State designated fire hazard severity zone (FHSZ) or local designation of FHSZ, which is covered with grass, grain, brush, or forest, whether privately or publicly owned, which is so situated or is of such inaccessible location that a fire originating upon such land would present an abnormally difficult job of suppression or would result in great and unusual damage through fire or resulting erosion."

While the City updated its Fire Prevention Code in December 2010, by adopting the 2010 *California Fire Code*, this local definition of a Hazardous Fire Area remains a part of the updated Municipal Code Chapter. Since the City-defined Hazardous Fire Area includes vacant, grass covered properties located at the interface between the extreme, moderate and no-fuel fire threat zones, substantial portions of Project site could constitute a locally-designated "Hazardous Fire Area" in the existing condition and portions of the site could continue to be so designated following mass grading, subsequent to re-vegetation and/or hydroseeding for erosion and dust control.

4.8.2.4 HAZARDS IDENTIFICATION AND EMERGENCY PLANNING

Multi-Jurisdictional Local Hazard Mitigation Plan:

In 2005 the County of Riverside prepared and adopted an updated *Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP)*. The LHMP⁹ is intended to help reduce risks from natural and other hazards by providing information that can be used to guide decision-makers as they commit resources to reducing the effects of natural and other hazards. The LHMP analyzes the risks associated with an expansive set of hazards, including wildland fire, flooding, earthquakes, extreme weather, landslides, hazardous materials incidences, toxic pollution, among others, and outlines the plans and programs to mitigate potential impacts. The LHMP also establishes the roles of various government agencies in a coordinated response to natural or man-made disasters. The LHMP also recommends specific actions, including pre-planning, zoning, and mitigation measures that have potential to prevent or minimize disaster-related losses. The LHMP includes a hazard assessment (e.g., "Hazards Inventory") for each of the participating jurisdictions, including the City of Banning. It also identifies areas where specific

⁹ County of Riverside, *Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) Part 1 and II, Updated March, 2005*, City of Banning Inventory (Part II).

types of hazards, such as earthquakes, landslides, floods, wildfires, and related would be most likely to occur.

The City participated in the County LHMP and uses the LHMP hazard assessment as a basis for its own risk assessment and management strategies. Such strategies may periodic monitoring of facilities and operations that produce, utilize, or store hazardous materials in the City.

CUPA Hazardous Response Area Plan

In 1994 SB 1082 was enacted in a statewide effort to consolidate the 6 hazardous materials related programs. These programs include: Business Emergency Plan/Hazardous Materials Handler, Hazardous Waste Generators, Underground Storage Tanks, California Accidental Release Prevention Plans, Aboveground Storage Tanks and Uniform Fire Code Hazardous Materials Management Plans. The result of this effort evolved into what is now called the *Certified Uniform Program Administration* (CUPA) program. The City of Banning has a *Hazardous Response Area Plan* that was developed as part of its requirements as a participating agency in the statewide CUPA. The City is responsible for ensuring that its Hazardous Response Plan addresses hazardous and toxic materials identified by the County's Department of Environmental Health Hazardous Materials Division and/or the Regional Water Quality Control Board.

Under the Hazardous Response Area Plan, during emergency circumstances where hazardous and toxic materials are determined unsafe by the County Department of Environmental Health, the City can require property owners to test, temporarily close, and/or remove all hazardous liquids, solids or sludge located on the site. When soil contamination is detected, the cleanup procedure to be followed, the degree or level of cleanliness required by the regulator, and the method of treatment (if permitted) are determined by the County Fire Department's Hazardous Materials Division and/or the Regional Water Quality Control Board. The City of Banning coordinates with appropriate County, State and federal agencies in the identification of hazardous material sites, and the active regulation of their timely cleanup. The City currently lists five hazardous materials storage locations under its jurisdiction: all are well sites, one of which is located adjacent to the Project site (Well #4).¹⁰

Multi-Hazard Functional Plan

The City adopted a Multi-Hazard Functional Planning document in 1996. The document is organized into three parts, which include: 1) the Banning Emergency Plan; 2) twelve functional annexes that describe the emergency response organization; and 3) a listing of operational data such as resources, key personnel, and essential facilities and contacts. The Emergency Plan addresses the City's planned response to extraordinary emergency situations associated with natural and man-made disasters and emergencies. The Plan's operations concepts focus on

¹⁰ Ibid. Specific Hazards Summary – City of Banning LHMP Inventory.

coping with potential large-scale disasters that could pose major threats to life and property and potentially impact the well being of large numbers of people.

The City is also involved in multi-agency monitoring of illegal dumping in its jurisdiction, participates in the regulation of underground storage tanks and septic systems, and also participates in the regulation of hazardous materials transport throughout the community.

Hazardous Materials Emergency Response Team

The County of Riverside Hazardous Materials Emergency Response (HAZMAT) Team is a joint agency effort with personnel from the Department of Environmental Health, Hazardous Materials Management Division and Riverside County Fire/California Department of Forestry. This team responds to incidents involving hazardous materials, throughout the County, 24 hours per day, 7 days per week. The closest County Hazardous Materials Team office, which would coordinate response, is located at 4065 County Circle Drive in the City of Riverside. Locally, the Riverside County Fire Department's Hazardous Materials Unit, housed at Station 20 in Beaumont, would be the first responder in the event of a hazardous materials incident on the Project site.

4.8.3 REGULATORY FRAMEWORK

4.8.3.1 HAZARDOUS MATERIALS REGULATIONS

Federal Regulations

Comprehensive Environmental Response, Compensation and Liability Act

Discovery of environmental health damage from disposal sites prompted the U.S. Congress to pass the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA or Superfund). The purpose of CERCLA is to identify and clean up chemically contaminated sites that pose a significant environmental health threat. The Hazard Ranking System is used to determine whether a site should be placed on the National Priorities List for cleanup activities.

U.S. Superfund Amendments and Reauthorization Act

The *Superfund Amendments and Reauthorization Act* (SARA) pertains primarily to emergency management of accidental releases. It requires formation of State and local emergency planning committees, which are responsible for collecting material handling and transportation data for use as a basis for planning. Chemical inventory data is made available to the community at large under the "right-to-know" provision of the law. In addition, SARA also requires annual

reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory.

Hazardous Materials Transportation

The *Hazardous Materials Transportation Act* is the statutory basis for the extensive body of regulations aimed at ensuring the safe transport of hazardous materials on water, rail, highways, through air, or in pipelines. It includes provisions for material classification, packaging, marking, labeling, and shipping documentation.

Resource Conservation and Recovery Act (RCRA)

The *RCRA Subtitle C* addresses hazardous waste generation, handling, transportation, storage, treatment, and disposal. It includes requirements for a system that uses hazardous waste manifests to track the movement of waste from its site of generation to its ultimate disposition. The 1984 amendments to RCRA created a national priority for waste minimization. Subtitle D establishes national minimum requirements for solid waste disposal sites and practices. It requires states to develop plans for the management of wastes within their jurisdictions. Subtitle I requires monitoring and containment systems for underground storage tanks that hold hazardous materials. Owners of tanks must demonstrate financial assurance for the cleanup of a potential leaking tank.

State Regulations

The California Hazardous Waste Control Law

The California *Hazardous Waste Control Law* (HWCL) is the primary hazardous waste statute in the State of California. The HWCL implements RCRA as a "cradle-to-grave" waste management system. HWCL specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning, and has a much broader requirement for permitting facilities that treat hazardous waste. It also regulates a number of types of wastes and waste management activities that are not covered by federal law with RCRA.

California Code of Regulations – Title 26 (Toxics)

Most State and federal regulations and requirements that apply to generators of hazardous waste are spelled out in the *California Code of Regulations (CCR)*, Title 22, Division 4.5. Title 22

contains the detailed compliance requirements for hazardous waste generators, transporters, and treatment, storage, and disposal facilities. Because California is a fully authorized state according to RCRA, most RCRA regulations (those contained in *40 Code of Federal Regulations* [CFR] 260 *et. seq.*) have been duplicated and integrated into Title 22 and are now a part of **Title 26**). However, because the Department of Toxic Substance Control (DTSC) regulates hazardous waste more stringently than the U.S. EPA, the integration of State and federal hazardous waste regulations that make up Title 26 do not contain as many exemptions or exclusions as does *40 CFR 260*. As with the *California Health and Safety Code*, Title 26 also regulates a wider range of waste types and waste management activities than does the RCRA regulations in *40 CFR 260*. To aid the regulated community, California compiled the hazardous materials, waste and toxics-related regulations contained in CCR, *Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27* into one consolidated CCR Title 26 'Toxics.' However, the California hazardous waste regulations are still commonly referred to as Title 22.

Certified Uniform Program Administration

Administration of the *Unified Program* is authorized by the *California Health and Safety Code*, Chapter 6.11, Sections 25404-25404 and the CCR Title 27, Division 1, Subdivision 4, Chapter 1, Sections 15100–1562. The Unified Program is implemented at the local level by government agencies certified by the secretary of California Environmental Protection Agency (Cal/EPA). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the environmental and emergency response programs summarized below. The Riverside County Hazardous Materials Management Division (HMMD), a division of the Riverside County Department of Environmental Health (DEH), is the Certified Unified Program Agency (CUPA) for Riverside County. The Unified Program includes the following:

California Accidental Release Prevention (CalARP) Program

The *CalARP Program* was established to prevent accidental releases of those substances determined to potentially pose the greatest risk of immediate harm to the public and the environment (*California Health and Safety Code*, Chapter 6.95, Article 2, Sections 25531–25543.3; CCR, Title 19, Division 2, Chapter 4.5, Sections 2735–2785). The CalARP Program is intended to mitigate the effects of an accidental release, should one occur, by requiring an emergency response program. The OES adopted the regulations that outline the CalARP Program requirements for all regulated businesses and the agencies that implement the CalARP Program in California. The CalARP Program incorporates federal requirements. The CalARP Program affects businesses that store or use certain hazardous materials in excess of threshold quantities that might seriously affect the community if released. The CalARP Program requires preparation of a risk management plan, an assessment of the off-site hazard potential, and the implementation of a program to minimize the risk of release.

Hazardous Waste Generator and On-Site Hazardous Waste Treatment (Tiered Permitting) Program

The *Hazardous Waste Generator and On-Site Hazardous Waste Treatment* (tiered permitting) Program was established to comply with *California Health and Safety Code, Chapter 6.5, Sections 25100–25250 and CCR, Title 22*. The DTSC is responsible for ensuring that the hazardous waste generator program is implemented consistently throughout the State. The DTSC implements the hazardous waste generator program through the State’s hazardous waste program and the *Unified Program*. The hazardous waste generator program applies to facilities that generate, treat, store, accumulate, handle, recycle, and dispose of hazardous waste. Riverside County implements a permit and inspection program designed to handle hazardous waste according to applicable federal, state, and local laws, regulations, and ordinances through education and enforcement.

California Uniform Fire Code: Hazardous Materials Management Plans and Hazardous Materials Inventory Statement

The Office of the State Fire Marshal is responsible for ensuring the implementation of the Hazardous Materials Management Plans and Hazardous Materials Inventory Statement Programs (*California Health and Safety Code, Chapter 6.11, Sections 25404.3(b) and 25404(c)(6) and CCR, Title 27, Division Chapter 4.5, Sections 15160(b)(1), 15100(g)(1), 15100(b)(2), 15100(g)(3), 15330(a)*); additionally, the *California Fire Code* (CFC) requirement for a business plan is included in the Unified Program (*CFC Sections 2701.5.1 and 2701.5.2*).

California Public Utilities Commission – General Order No. 131-D

The *California Public Utilities Commission* (PUC) regulates investor-owned telecommunications, electric, natural gas, and water utilities operating in the State of California. The PUC must comply with the requirements of CEQA when it approves any requested utility action that may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment. The PUC oversees almost all large utility construction projects, and also considers approval of other types of utility activity that might have a significant impact on the environment. When a utility plans to construct a power line (defined as a line designed to operate between 50 and 200 kilovolts (kV)) it must comply *with Section IX.B, X and XI.B of the PUC General Order* in order to receive a Permit to Construct. Compliance with Section IX.B is not required for power lines to be relocated or constructed which have undergone environmental review pursuant to CEQA as part of a larger project, and for which the final CEQA document finds not significant unavoidable environmental impacts caused by the proposed line (Section III.B.1f).

The PUC stated in D.06-01-042 that, “At this time we are unable to determine whether there is a significant scientifically verifiable relationship between EMF exposure and negative health

consequences.” The Commission’s EMF policy is one of prudent avoidance, with application of low-cost/no-cost mitigation measures to reduce EMF exposure for new and upgraded utility transmission and substation projects. The Commission has adopted a benchmark of 4% of total project cost for low-cost EMF mitigation measures, with flexibility to allow expenditures above the 4% benchmark if justified by a project’s unique circumstances. As a guideline, the Commission stated that low-cost EMF mitigation measures should reduce EMF levels by at least 15% at the utility right-of-way.

Local Regulations

Riverside County Ordinance No. 6153

This ordinance implements a monitoring program for establishments where hazardous waste is generated, stored, handled, disposed, treated, or recycled and to regulate the issuance of permits and the activities of establishments where hazardous waste is generated. This ordinance designates the Riverside County Department of Environmental Health to enforce the provisions of the *California Health and Safety Code, Chapter 6.5, Division 20, Sections 25100 et seq.*, and the Environmental Health Standards for the Management of Hazardous Waste as specified in *Title 22 of the California Code of Regulations, Division 4.5* pertaining to the generation, storage, handling, disposal, treatment, and recycling of hazardous waste.

City of Banning Comprehensive General Plan – Hazardous and Toxic Materials Element (2006)

The *Hazardous and Toxic Materials Element* presents methods for the safe management of hazardous and toxic materials in the City of Banning. The reduction or elimination of these hazards can occur through the City’s establishment of policies and programs that identify hazard areas and reviews and regulate development where hazards occur. The primary goal is to maintain and promote measures to protect life and property from hazards resulting from human activities and development.

- **Hazardous Materials – GP Policy 3** – The City shall thoroughly evaluate development proposals for lands directly adjacent to sites known to be contaminated with hazardous or toxic materials, traversed by natural gas transmission lines or fuel lines, or sites that use potentially hazardous or toxic materials.

City of Banning Municipal Code

The City’s Municipal Code includes sections which regulate the transport of hazardous materials (Chapter 10.20, *Transportation of Hazardous Materials*), underground storage tanks and septic systems (Chapter 8.04, *Abandoned Gas Stations*, and Chapter 8.16, *Fire Prevention Code*), abandonment of water wells (Chapter 13.12, *Water Wells*), weed abatement and reduction of fire

hazards (Chapter 8.48, *Nuisances*, and Chapter 8.16, *Fire Prevention Code*), relocation and undergrounding of utilities (Chapter 12.12, *Street Excavations*), and protection of utilities during excavations (Chapter 18.09.160 (*Protection of Utilities*)).

4.8.3.2 URBAN-WILDLAND INTERFACE REGULATIONS

California Urban-Wildland Interface Building Code, Title 24, Part 2, Section 701A.2.2

On September 20, 2005, the California Building Standards Commission approved the Office of the State Fire Marshall's emergency regulations amending the *California Building Code (CBC) Title 24, Part 2, Section 701A.2.2* to include *Urban-Wildland Interface Fire Area Building Standards* (the "Standards"). The broad objective of the amendment is to establish minimum standards for materials and material assemblies and provide a reasonable level of exterior wildfire exposure protection for building located in Urban-Wildland Interface Fire Areas. In January 2009 a supplement to section 701.A was issued, titled *Materials and Construction Methods for Exterior Wildfire Exposure*.

SRA Fire Safe Regulations, Title 13, Division 1.5, Chapter 7, Subchapter 2

The SRA Fire Safe Regulations contained in *CBC Title 13, Division 1.5, Chapter 7, Subchapter 2* constitute the basic wildland fire protection standards of the California Board of Forestry and establish minimum wildfire protection standards in conjunction with building construction and development in State Responsibility Areas (SRA) and implement the provisions of *PRC Sections 4290 and 4291*.

California Public Resources Code Sections 4201-4204 and Government Code Sections 51175- 51189

The Government Code chapter defines responsibilities for the California Department of Forestry and Fire Protection to identify very high fire hazard severity zones and requires the Department to transmit this information to local agencies, which must make the recommendation available for public review.

California Public Resources Code Sections 4291-4299

These sections of the California PRC deal with fire hazard mitigation in or on properties abutting mountainous areas, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable materials. It sets out regulations that define and implement defensible space requirements, including fuel modification. *PRC Section 4291* requires that the defensible space extend 100 feet from those sides of a structure that abut wildlands. While defensible space zones are generally confined to the lot itself, they can be

extended beyond the boundary of an exposed property under certain circumstances outlined in the PRC.

2010 California Fire Code - Chapter 49

CFC Chapter 49 contains the State requirements for urban-wildland interface fire areas. It provides minimum standards to increase the ability of a building to resist the intrusion of flame or burning embers being projected by a vegetation fire so as to reduce conflagration losses through the use of performance and prescriptive requirements. Section 4905 of the CFC requires use of materials and construction methods for exterior wildfire exposure within geographic areas where a wildfire burning in vegetative fuels may readily transmit fire to buildings and threaten to destroy life, overwhelm fire suppression capabilities, or result in large property losses (*Section 4905.1, General*) and specifically references the requirements of the 2010 CBC Chapter 7A, the CRC Section R327, and the California Reference Standards Code Chapter 12-7A, in addition to the requirements contained in Chapter 49 of the CFC.

Section 4906, *Hazardous Vegetation and Fuel Management*, mandates the management of hazardous vegetation and fuels to reduce the severity of potential exterior wildfire exposure to buildings and reduce the risk of fire spreading. Fuel management is mandated in all unincorporated land designated by the State Board of Forestry and Fire Protection as State Responsibility Areas including (1) Moderate Fire Hazard Severity Zones; (2) High Fire Hazard Severity Zones; and (3) Very High Fire Hazard Severity Zones, and in all lands designated as Very High Fire Hazard Severity Zones by cities or other local agencies.

California Board of Forestry 2006 General Guidelines for Creating Defensible Space

Adopted by the BOF in February 2006 and approved by the Office of Administrative Law on May 8, 2006, these guidelines provide guidance on fuel modification measures that meet the requirements of 2005 amendments to PRC §4291, which expanded the defensible space clearance requirement from 30 feet to 100 feet. The guidelines apply to any person or entity that owns, leases, controls, operates or maintains a building or structure in, upon, or adjoining wildlands, grasslands or other land that is covered with flammable materials. The California Board of Forestry (BOF) *Guidelines* define *defensible space* as the area within the perimeter of a parcel where basic wildfire protection practices are implemented, providing the key point of defense from an approaching wildfire or escaping structure fire. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures.¹¹

In general, fire hazard reduction in the defensible space zone includes requirements for the thinning and maintenance of existing trees, shrubs, and ground cover within the minimum 100-

¹¹ State Board of Forestry and Fire Protections (BOF), *General Guidelines for Creating Defensible Space*, 2006, p 3.

foot wide setback zone so as to reduce the amount of fuel on those sides of any structure that face the UWI, also known as *fuel modification* or *fuel modification zone*. These measures are cited and described in detail in the *Technical Background Report to the Safety Element of the City's General Plan* (Appendix D of the General Plan) as well as in the *BOF Guidelines*.

California Environmental Requirements Affecting UWI Areas

As noted in the *BOF Guidelines*, fuel modification activities that remove or dispose of vegetation are required to also comply with all federal, State or local environmental protection laws. Statutory environmental protections that could impact fuel modification activities include threatened and endangered species, water quality, air quality, and cultural/archaeological resources in as much as vegetation removal contemplated as part of fuel modification activities can also cause soil disturbance, soil erosion, regrowth of new vegetation, modification of habitat, and the introduction of non-native invasive plants. Areas of particular sensitivity include riparian areas, streams, or ponds and the *BOF Guidelines* recommends avoiding removing vegetation associated with water. In Riverside County, properties that support or are developed adjacent to properties containing Riversidian Sage Scrub (gnatcatcher habitat) frequently require special treatment, as do areas with sensitive riparian/riverine habitat.

City of Banning Comprehensive General Plan – Wildland and Fire Hazards Element (2006)

The *Wildland and Fire Hazards Element* of the City's Comprehensive General Plan sets forth goals, policies and programs to address the potential for wildland fires in the community and to reduce the risk to life and property associated with them.

- **Wildfire – GP Policy 3** – Continue to identify wildfire hazard areas, and to enforce special standards for construction in wildland fire hazard areas.

Program 3.A – New and substantially remodeled structures or developments shall incorporate wildfire prevention design techniques, such as the use of “defensible space,” fire retardant sidings, optimal site planning and building orientation, landscaping orientation, and other design approaches to reduce wildfire hazards.

Program 3.B – Require that adequate emergency vehicle access and evacuation routes be available with approval of any new development.

Also see the *Technical Background Report to the Safety Element of the City's General Plan* (Appendix D of the General Plan).

Riverside County Fire Department Urban-Wildland Interface Standards

County Fire Department's UWI Standards, as well as those contained in Chapter 7A of the 2007 CBD, require submission of a *Fire Management Plan or Fuel Modification Plan (FMP)*, prepared pursuant to the requirements of the 2007 CBC and the California Fire Code, Chapter 47. The FMP is required to describe ways to minimize and mitigate potential for loss from wildfire exposure and should provide for adequate buffering, building construction standards, and fuel modification zones that are consistent with Fire Department standards. In the City of Banning, preparation of a FMP and its approval by the Fire Department is required prior to the approval of any Tentative Tract Map or Land Use Permit for property adjacent to natural open space. The Riverside County Fire Department (Banning Fire Services) also requires UWI setbacks and fuel modification for lots that are located within areas, "adjacent to open space."¹²

City of Banning Municipal Code Title 8, Chapter 8.16 (Fire Prevention Code)

Chapter 8.16 of the *City of Banning Municipal Code* contains the City's *Fire Prevention Code*. Pursuant to *Ordinance No. 1421*, approved on December 14, 2010, the City has adopted the 2010 California Fire Code in its entirety while retaining specific provisions of earlier versions of the Chapter 8.16 of the Municipal Code.

City of Banning Municipal Code Chapter 15.08 (Building Code)

On January 11, 2011, the City adopted *Ordinance No. 1433* that deleted the existing Chapter 15.08 in its entirety and adopted a new Chapter 15.08 including the *California Building Code, 2010 Edition*, including Chapter 1, Division II, based on the 2009 IBC; the *California Residential Code, 2010 Edition*, based on the 2009 IRC; the *California Green Building Standards Code, 2010 Edition*. These codes contain specific provisions regarding fire-safe building requirement including those referenced in Chapter 49 of the *2010 California Fire Code*.

4.8.4 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist form used to determine the significance criteria for this analysis. Accordingly, a project may create a significant environmental impact if it would:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

¹² Riverside County Fire Department (Banning Fire Services), *Standard Fire Department Requirements for "Fuel Modification Zones" and Construction Improvements for projects in or adjacent to Wildland Areas*.

- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school;
- d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project site. Refer to Section 7.0, *Effects Found Not to be Significant*.
- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project site. Refer to Section 7.0, *Effects Found Not to be Significant*.
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or
- h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized study areas or where residences are intermixed with wildlands.

CEQA Guideline thresholds pertaining to impacts associated with public and private airports are not considered in this analysis. An Airport Land Use Compatibility Plan (ALUCP) for the Banning Airport was adopted in October 2004 by the County of Riverside Airport Land Use Commission.¹³ The proposed Project site is located approximately 6.5 miles northwest of the airport and is outside any of the compatibility zones established in the ALUCP. There are no private airports or air fields near the project site. Accordingly, airport operations have no impact on the Project site and impacts related to airport operations are effects found not to be significant.

4.8.5 IMPACT ANALYSIS AND MITIGATION MEASURES

ANALYTIC METHOD

The qualitative analysis in this section focuses on potential public safety and hazards impacts, including the use, disposal, transport, or management of hazardous or potentially hazardous materials resulting from the construction and operation of the proposed Project, as well as the

¹³ Riverside County ALUCP – East County Airports Background Data (October 2004), *Banning Municipal Airport*, Chapter EI – Background Data pp E1-8 (Exhibit BN-7).

potential for the accidental release of hazardous materials during the construction and operation of the Project. In addition, this section analyses the potential hazards associated with urban-wildland interface areas relative to wildfire. The information in this section is based upon reviews of previously prepared reports documenting environmental investigations at the Project site, as well as other similar environmental documentation prepared for similar projects. In determining the level of significance, the analysis assumes that the construction and operation of the proposed Project would comply with all applicable federal, state, and local laws and regulations. The EIR analysis is based on review of available documents, including the proposed Specific Plan and associated tract maps, as well as Project-specific technical studies contained in Appendix F, *Hazardous Materials Assessment*.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing local, State, and federal regulations noted in Section 4.8.2.2 will avoid or mitigate potential impacts related to hazards and hazardous materials. The following Project Design Features will also reduce, avoid or offset potentially adverse impacts:

- 1) The Project proposes a reduced residential density with larger lots in the northern portion of the site to allow incorporation of fuel modification zones into lots abutting wildland areas and to allow preservation of natural open space. Maintenance of fuel modification/management zones will be the responsibility of individual homeowners on private property; however a maintenance easement will be recorded over fuel modification zones located within these private lots that will permit either the Master Homeowners Association, LLMD, or other appropriate maintenance agency/entity approved by the City of Banning, to enter into the property to ensure adequate and uniform maintenance. Portions of fuel modification zones on private lots located outside of the lot fence line will be maintained directly by the HOA or LLMD while those portions fuel modification zones on private lots located inside the fence line will be maintained by the homeowner but will be inspected by the LLMD or HOA and the LLMD or HOA will have the ability to enter into the private lot if necessary to ensure appropriate maintenance of the fuel modification zone if the homeowner fails to provide that maintenance.
- 2) School sites have been relocated in consultation with the local school districts, in part to ensure adequate separation from existing SCE power lines and the SCGC 30-inch high pressure gas line. To the extent that these locations may change as the project develops, other potential school sites would observe the same required setbacks from the SCE transmission lines and SCGC high pressure gas line.
- 3) Portions of the Southern California Gas Pipeline will be relocated to ensure that the entirety of the pipeline is located within paved streets or within the golf course. No homes will have frontage on the streets where the pipeline will be located and

proposed homes will be further buffered by parkway setbacks, block walls, rear yard setbacks and the golf course to reduce risk in the event of a leak or other upset. Existing pipeline will be replaced with residential grade pipeline by Southern California Gas Co. per PUC requirements.

- 4) The Alternative On-Site Satellite Waste Treatment Plant will store all potentially hazardous materials (primarily chlorine) in a separate building with appropriate safeguards as required by law and will provide appropriate signage and inventory control as required by the Fire Department so as to reduce any potential risk of upset.
- 5) The Project will include the construction of two 5-million gallon water storage reservoirs, one 1.6-million gallon water storage reservoir, one 1-million gallon recycled water storage reservoir and a multi-use basin which can store water for groundwater recharge. Three of the water storage reservoirs would be located in the north/northeastern portion of the site, and the multi-use basin would be located in the northern portion of the site where Smith Creek enters the property. These reservoirs will provide sources of water available for both structure and wildfire response.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.8- 1: Use and Transport of Hazardous Materials

Threshold: *Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

The routine transport, use, and disposal of hazardous materials can result in hazards to people and the environment, due to the potential for accidental release. Such hazards are typically associated with certain types of land uses, such as chemical manufacturing facilities, industrial processes, waste disposal, and storage and distribution facilities. At full buildout, the proposed Project would consist of single family and multi-family residences, commercial development (e.g. retail and office development), two schools, a golf course, parks and open space, and a possible satellite wastewater treatment plant. With the exception of the wastewater treatment plant, none of these land uses is expected to use significant quantities of hazardous materials or to generate significant quantities of hazardous wastes requiring transport.

Impact Analysis – Wastewater Treatment and Electrical Substation Facilities – Long-Term Operational Impacts

Determination: Less than Significant

As an alternative to connecting to the City's wastewater system, the Project proposes possible construction of a satellite wastewater treatment plant within approximately a 2.5 acre site

located at the southern end of PA 11; refer to Section 3, *Project Description*, for details. The satellite wastewater treatment plant would operate 24-hours per day with approximately 16 hours of operational staffing per week. All activities would take place within fully enclosed buildings. The solids removed during the treatment process would be pumped directly into the existing sewer line in Wilson Street and would not be retained in on-site holding ponds. These residual solids would flow to the City's existing wastewater treatment plant for further treatment and disposal. Since there would be no further handling of solids at the satellite wastewater treatment plant, there would be no significant truck traffic accessing the site during its operation. After treatment and prior to distribution, recycled water would be stored on-site in a 1-million gallon above ground water storage tank. Any excess recycled water would be discharged into the sewer system.

As noted in the Regulatory section, the wastewater treatment process and the use of recycled water is regulated by the State of California pursuant to the *California Code of Regulations, Title 22, Division 4, Chapter 3, Water Recycling Criteria*. According to these regulations, recycled water used for irrigation of public areas such as golf courses, commercial planting areas, parks, playgrounds and schoolyards must be filtered and disinfected to a tertiary standard to allow for full body contact. To comply with these regulations, disinfection of treated water with chlorine would be required. Since chlorine is a potentially hazardous chemical, operation of an on-site wastewater treatment facility may require the routine transport, use, and disposal of hazardous materials.

To ensure safe handling, storage, use, and transport of hazardous materials associated with wastewater treatment, the facility would comply with Standard Guidelines adopted by the federal Occupational Safety and Health Administration (*Hazardous Waste Operations and Emergency Response Standard, Title 29 Code of Federal Regulations (CFR) Part 1910.120*), as well as the California Department of Toxic Substances Control (DTSC). In addition, operational transportation, storage, use, and disposal of hazardous materials and wastes would comply with all regulations, guidelines, and standards contained within the County's Hazardous Waste Management Plan and applicable permitting procedures required by all Federal, State, and local agencies associated with hazardous materials and waste issues. In California both the Department of Health Services (DHS) and the State Water Resources Control Board (SWRCB) have authority to regulate activities of water recycling plants. The *California Fire Code* requires conformance to the proper storage and use of hazardous materials and containment of storage areas and secondary containment of chemical lines to contain spills. Conformance with these standards would be monitored by the appropriate regulatory agency through facility inspections and annual reporting mechanisms throughout the operational life of the facility. Compliance with these existing regulations and on-going monitoring of the plant's operations would reduce potential impacts associated with the routine use, handling, transport, and storage of hazardous materials in connection with the operation of the Alternative Satellite Wastewater Treatment Plant to a less than significant level.

Utility Substation

An existing utility substation is shown within PA 70 of the proposed Project. The City of Banning has completed the transfer/ conveyance of this property, and construction of this facility under a separate environmental process, which assumed to ultimate development of the project site as generally proposed by this Specific Plan. Accordingly, the environmental impacts of hazardous materials associated with the operation of the substation within the Project site have already been addressed and are not considered in this document.

Impact Analysis – Project Construction Phase Impacts

Determination: Less than Significant with Mitigation Incorporated

Clearing, grubbing and grading of the site would involve the use of heavy equipment that would require maintenance and fueling on-site and that would be parked on the property when not in use during the grading phase(s). Maintenance and fueling activities would involve the use and transport of petrochemicals that could be hazardous if stored or used improperly. These chemicals would need to be transported to the site, and potentially hazardous waste such as oil, transmission fluid, brake fluid, coolant, etc. would need to be transported from the site and appropriately disposed of. Fuel spills and leaks could result in soil contamination. In addition, clearing, grubbing and grading could uncover soils contaminated by prior agricultural activity, although the ESA prepared for the project does not include a finding that pesticides or herbicides were used to support prior agricultural uses.

Construction on the Project site would involve the use of various products that could contain materials classified as hazardous. In California used oil, solids contaminated with used oil, parts cleaning solvent, paint-related wastes including paints, thinners, fillers, and sludges are considered hazardous waste in addition to solvents, adhesives and cements, cleaning agents and degreasers. Exposure of construction workers or others to hazardous materials could occur through improper handling or use of hazardous materials or hazardous waste during construction or operation of the proposed Project, through transportation accident, environmentally unsound disposal methods, or fire, explosion or other emergencies, all of which could result in adverse health effects.

Hazardous waste management on construction sites is regulated by the Department of Toxic Substances Control, pursuant to the *California Hazardous Waste Control Act* while the disposal of inert construction debris is regulated by CalRecycle. As part of the implementation of the Butterfield Specific Plan Project, the developer and its contractors/subcontractors would be required to comply with existing hazardous materials regulations, which are codified in *Titles 8, 22, and 26 of the California Code of Regulations*, and their enabling legislation set forth in *Chapter 6.95 of the California Health and Safety Code* as well as with the applicable provisions of *Title 14 of*

*the Natural Resources Code*¹⁴ as regards the disposal of inert construction debris. In addition, the Project would be required to comply with applicable federal, State, and local laws and regulations pertaining to the transport, use, and disposal of hazardous waste, including, but not limited to, *Title 49 of the Code of Federal Regulation* and as implemented by *Title 13 of the CCR*. In addition, mitigation measures HAZ-1, which requires preparation and implementation of a construction contingency plan, HAZ-2, which requires specific standards for the maintenance and fueling of construction equipment on-site, shall be implemented during the construction phase(s) of the proposed Project.

Mitigation Measures

Mitigation measure HAZ 1 requires development of a plan to deal with contaminated soils if encountered during the course of construction; Mitigation Measure HAZ 2 requires a 500-foot separation between heavy equipment maintenance & fueling areas and adjacent residential uses; Mitigation HAZ 3 requires implementation of specific BMPs to contain, manage, and dispose of construction phase hazardous materials and hazardous wastes. These mitigation measures, together with implementation and compliance with existing regulations, all ensured by regular inspection by of the construction site by City inspectors and inspectors from the Regional Water Quality Control Board, would reduce potentially significant construction phase impacts related to the routine use, transport or disposal of hazardous materials and hazardous wastes to less than significant levels:

HAZ-1: The grading plans shall indicate methods to address potential contamination discovered during construction, as well as safety considerations for on-site construction personnel and the general public. Details of the plan shall include, but not be limited, to the following:

- Procedures for identification of contaminated soil during earthmoving operations;
- Immediate measures to protect workers and the public from exposure to contaminated areas (e.g., fencing or hazard flagging, covering of contaminated soils with plastic, etc.) and prevent migration of the contaminants to the surrounding environment; and
- Steps to be taken following initial discovery of contaminated soils. Notification shall be made to the local environmental health officials and the City's construction inspector(s) immediately following identification of previously unknown contamination within the construction area. In the event hazardous substances are encountered during site grading, work shall immediately cease in the area and the property owner/developer shall retain

¹⁴ Cal Recycle, Regulations: Title 14, Natural Resources – Division 7, CIWMB, Chapter 3, Article 5.95, <http://www.calrecycle.ca.gov/Laws/Regulations/Title14/ch3a595a.htm>, accessed 12/10/2010.

a qualified hazardous materials engineer to assess the impacts and prepare a response plan using risk-based cleanup standards applicable to residential land use. Upon approval of the response plan by the Fire Department or other agency, as applicable, the engineer shall obtain any required permits, oversee the removal of such features and/or conduct the response work to the satisfaction of the Fire Department or other agency, as applicable, until closure status is attained.

HAZ-2: As part of construction specifications, procedures for the fueling and maintenance of construction vehicles shall be required to minimize the potential for accidental release of hazardous materials. This shall include locating refueling and maintenance areas minimum of 500 feet from occupied residential uses. Drip plans shall be placed under motorized equipment when parked on the site to prevent soil contamination from dripping oil or other fluids.

HAZ-3 Hazardous construction waste management practices are to be implemented pursuant to the Best Management Practices contained in the California Stormwater BMP Handbook (2009)¹⁵ and shall include the following:

1. All hazardous construction wastes as defined by Title 22 Division 4.5, or listed in 40 CFR Pars 110, 117, 261, or 302, including but not limited to petroleum products, concrete curing compounds, palliatives, septic wastes, stains, wood preservatives, asphalt products, pesticides, acids, paints, solvents, roofing tar, sandblasting grid mixed with lead-, cadmium-, or chromium based paints, asbestos, or PCBs, that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler.
2. Wastes shall be stored in sealed containers constructed of suitable material and shall be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172, 173, 178, and 179.
3. Waste containers shall be stored in temporary containment facilities that should comply with the following requirements:
 - a. Temporary containment facility shall provide for a spill containment volume equal to 1.5 times the volume of all containers able to contain precipitation from a 25 year storm event plus the greater of 10 percent of the aggregate volume of all containers or 100 percent of the largest tank within its boundary, whichever is greater.

¹⁵ California Stormwater Quality Association, 2009 Construction BMP Handbook, 2010, accessed from <https://www.casqa.org/casqastore/entity/tabid/169/c-4-best-management-practice-bmp-handbooks.aspx> 3.10.11

- b. Temporary containment facility shall be impervious to the materials stored there for a minimum contact time of 72 hours.
 - c. Temporary containment facilities shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills should be placed into drums after each rainfall. These liquids shall be handled as a hazardous waste unless testing determines them to be non-hazardous.
 - d. Sufficient separation shall be provided between stored containers to allow for spill cleanup and emergency response access.
 - e. Incompatible materials such as chlorine and ammonia shall not be stored in the same temporary containment facility.
 - d. Throughout the rainy season, temporary containment facilities shall be covered during non-working days and prior to rain events.
4. Storage drums shall not be overfilled and wastes should not be mixed.
5. Unless watertight, containers of dry waste shall be stored on pallets.
6. Herbicides and pesticides shall not be over used. Only the amount needed shall be prepared. Apply surface dressings in several small applications as opposed to one large application. Allow time for infiltration and avoid excess material being carried off-site by runoff. Do not apply such chemicals immediately prior to rain events. All persons applying pesticides must be certified in accordance with federal and State regulations.
7. Paint brushes and equipment for water and oil based paints should be cleaned within a contained area and shall not be allowed to contaminate soil, watercourses or drainage systems. Waste paints, thinners, solvents, residues, and sludges that cannot be recycled or reused shall be disposed of as hazardous waste by a licensed hazardous waste hauler.
8. Hazardous waste storage areas on-site shall be located away from storm drains or water courses and way from moving vehicles and equipment to prevent accidental spills.
9. Containment berms shall be used in fueling and maintenance areas and where the potential for spills is high.
10. Potentially hazardous waste shall be segregated from non-hazardous construction site debris.
11. Liquid or semi-liquid hazardous materials shall be stored in appropriate containers and under cover.
12. Hazardous waste collection sites shall be designated on-site away from watercourses and drainage systems, and shall be clearly labeled.

13. Hazardous materials shall be stored in containers and protected from vandalism.
14. All employees and subcontractors shall receive on-site training in hazardous waste storage and disposal procedures.
15. Areas treated with chemicals shall be identified with appropriate warning signage
16. Place a stockpile of spill clean-up materials where it will be readily accessible
17. Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are underway, BMPs shall be inspected on a weekly basis.
18. A copy of hazardous waste manifests shall be maintained on-site for access by City inspectors.

Impact Analysis – Project Operational Phase Impacts

Determination: Less than Significant

Landscape maintenance activities typically include the storage and periodic application of pesticides, herbicides, and fertilizers, as well as the storage and use of toxic fuels and solvents. Properly removing and disposing of on-site hazardous materials in accordance with State and federal regulations before they are accidentally disturbed can reduce impacts associated with these hazards.

Nearly all Riverside County residents have some type of hazardous material in their homes. Examples include motor oil, paints, cleaners, aerosols, and pesticides. Household hazardous materials pose serious health or environmental contamination issues for people who improperly use or dispose of these materials. Adverse environmental impacts can also occur when household hazardous materials are disposed of in unlined sanitary landfills, where these materials may leach through the soil and contaminate groundwater. The level of risk associated with routine transport or disposal of hazardous substances generated by residential uses is not considered significant because of the small volume and low concentration of hazardous materials utilized in residential areas. In Riverside County there are three regional permanent Household Hazardous Waste (HHW) collections facilities. In addition, electronic wastes can be accepted at active landfills, HHW collection facilities, temporary collection events that are held throughout the County, including in the City of Banning, or a waste transfer stations serving the City.

The proposed Project includes a commercial component. Commercial uses permitted on the site may include businesses, such as dry cleaning establishments, gas stations, auto repair

facilities, doctor's offices, etc, which routinely use and/or dispense hazardous agents. In California, persons and businesses that generate, transport or offer for transport, treat, store, or dispose of hazardous waste generally must have an Identification (ID) Number, which is used to identify the hazardous waste handler and to track the waste from its point of origin to its final disposal ("From Cradle to Grave").

Most hazardous waste falls into two types in California: waste regulated by the federal government under the *Resource Conservation and Recovery Act* is known as "RCRA waste"; waste regulated by California law alone is known as "non-RCRA" or "California-only" waste. All hazardous waste in (RCRA and non-RCRA) California is regulated under state statutes and regulations. If a business generates more than 1 kilogram of RCRA acutely hazardous waste per month or more than 100 kilograms of other RCRA waste per month, they must have a federal ID number. If the business generates 100 kilograms or less of RCRA waste or one kilogram or less per month of acutely hazardous waste, and meet certain other requirements, they are exempt from having a federal ID number. These businesses are called conditionally exempt small-quantity generators or CESQGs.

Hazardous waste that is generated by commercial entities and businesses are not accepted at any Riverside County landfill. Hazardous wastes disposal must be handled by licensed hazardous waste haulers. Commercial facilities that routinely handle and dispose of hazardous materials are subject to both permitting and inspection by the California Department of Toxic Substances Control. The permitting procedure includes requirements for the installation and maintenance of facilities and systems that treat and control hazardous materials and govern its disposal. Failure to comply with the conditions of the permit and/or the facility's operating plan can result in permit suspension, fines, and permit revocation. Permit requirements also include the training of employees in the proper handling and disposal of hazardous materials, maintenance of inspection records and the maintenance of inspections logs, and the maintenance of hazardous waste manifests. All businesses operating within the Project site that would regularly receive, store, handle, generate, or dispose of regulated types and quantities of hazardous materials and waste products would be regulated pursuant to appropriate permits and inspected annually to ensure compliance with permit conditions. Accordingly, compliance with existing regulations would be sufficient to reduce potential impacts to a less than significant level and no additional, project specific mitigation measures would be required.

The proposed golf course would be heavily landscaped with turf, shrubs, and trees. Typically golf courses utilize pesticides and herbicides as well as fertilizers to maintain greens. Reduction of potential water quality impacts to Smith Creek, a natural drainage course that traverses the Project through the golf course area, due to run-off of nutrient-carrying irrigation and storm flows will be addressed in Section 4.9, *Hydrology and Water Quality* and will not be discussed in this Section. Routine transport and storage of chemicals used for landscape maintenance, maintenance of perimeter walls, and maintenance of Project-maintained recreational facilities would occur during the Project's operational phase. To the extent that the golf course handles, stores, or disposes of hazardous materials and wastes subject to regulation by the State

Department of Toxic Substances Control, its impacts would be reduced to a less than significant level through implementation of existing regulations described for other Project-based commercial uses.

Impact 4.8-2: Risk of Upset

Threshold: *Would the Project create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

The construction and operation of new developments could result in hazards to the public or the environment through the accidental upset or release of hazardous materials caused by accidental spillage of hazardous materials used during the construction and/or operational phases of the Project, or as a result of the exposure of contaminated soil during grading and trenching activities. In addition, a high pressure natural gas pipeline traverses the site and would be expected continue to do so through the anticipated life of the Project, posing a risk of explosion and soil contamination in the event of leaks or other pipeline failure. The Phase I ESA for the Project site evaluated the potential for hazardous materials, based upon readily discernible and/or documented present and historic uses of the properties and uses adjoining the sites and generally characterized the expected nature of hazardous materials that may be present as a result of such uses.

Impact Analysis - Prior Agricultural Use of the Site

Determination: Less than Significant

The Phase I ESA determined that the Project site has historically been used for cattle grazing and dry farming. Typically, agricultural activities rely on chemical fertilizers, herbicides, and pesticides to produce food. However, the Phase I ESA prepared by Converse Consultants in 2002 and updated in 2007 did not find evidence of the use of herbicides or pesticides in connection with the historic cultivation of the site prior to 1988.¹⁶ The site has been used for the grazing of cattle intermittently since the California Mission period. Accordingly, nitrates and other chemicals associated with cattle manure could have leached deeply enough into the soil to have resulted in soil and/or groundwater contamination. However, given the depth to groundwater over the site, contact with potentially contaminated, untreated groundwater during site excavation, grading, and trenching activities is considered highly unlikely. Accordingly, risk of upset associated with past agricultural use of the site is considered to be less than significant.

¹⁶ Technical Memorandum – Hazardous Materials Review, Converse Consultants, March 12, 2007.

Impact Analysis – Existing Abandoned Well

Determination: Less than Significant with Mitigation Incorporated

The Phase I ESA identified a water well on the project site that appeared to have been abandoned and is described as being in poor condition. Unless properly abandoned and capped, the well could provide a route for the migration of surface contaminants, including nitrates and bacteria from cattle waste and hazardous wastes associated with construction, into the groundwater. The capping of an existing abandoned well and removal of existing pipeline associated either with the well or with site irrigation associated with prior agricultural uses would be required prior to the start of grading and should be accomplished as part of the clearing and grubbing of the site to ensure that subsequent grading and construction activity does not result in contamination of groundwater or soil conducted through the well casing and associated pipelines. Implementation of Mitigation Measure HAZ-4 would require the proper abandonment and capping of the on-site well prior to the start of grading on the Project site. With this mitigation, risk of upset associated with potential contamination conducted by the well casing would be reduced to a less than significant level.

Impact Analysis - Debris Removal, Illegal Dumping, and Abandoned Equipment

Determination: Less than Significant with Mitigation Incorporated

The Phase I ESA identified a diesel engine, an associated water well pump, and five damaged automotive batteries on a concrete pad, along with the apparently abandoned water well in the southern portion of the Project site. In addition, debris piles containing asphalt debris, tires, automotive parts, and other potentially hazardous materials were identified in various locations on the site. Residues from these materials may be present in the soil within the Project site, potentially requiring not only removal of the solid debris but also removal and/or treatment of contaminated soils in the vicinity of the debris piles. Because the water table is located over 300 feet bgs, it is unlikely that residues have leached into the groundwater or that groundwater will be encountered during grading and excavation of the site; however, it is possible that contaminant, if any, generated by the existing debris, trash, and soils to have been washed into the Smith Creek channel as a result of the surface flows to which the site is subject or as a result of wind erosion. These potential impacts, to the extent that they may have occurred, would not be the result of the proposed Project and would have been occurring for many years. Mitigation Measure HAZ-5 would require the removal and appropriate disposal of debris; including potentially hazardous waste and any soil that may have been contaminated by this debris, and would result in a significant improvement over the existing condition. Implementation of Mitigation Measure HAZ-5 would also ensure that removal of the debris, including any potentially hazardous or toxic components, would be handled by appropriately licensed and trained contractors and waste haulers.

Removal and disposal of potentially hazardous trash and debris or contaminated soils could require special handling pursuant to applicable regulations. For example, automotive tires must be removed and disposed of by specialized waste tire haulers who are registered with the State Department of Resources Recycling and Recovery (CalRecycle) and bonded pursuant to the Department's regulations. Other agencies, including the Regional Water Quality Control Board, Department of Toxic Substances Control, SCAQMD, County Fire Department and the City could also impose permitting requirements or other limitations on handling and disposal of specific materials that could be present in debris piles located on the site.

Further environmental assessment could be required to ensure that all debris and potentially contaminated soils associated with the debris are properly identified and appropriately handled and disposed of. Accordingly, Mitigation Measure HAZ-5 also requires additional assessment of all debris piles located on the site prior to grading and clearing with additional testing and implementation of appropriate methods of handling and disposal as may be required to ensure full compliance with applicable State and federal regulations. Also refer to Section 4.9, *Hydrology and Water Quality* for a discussion of mitigations measures and regulations that would be implemented to ensure protection of the Smith Creek channel during the construction phase of the Project.

Mitigation Measures

HAZ-4 The abandoned well identified in the 2007 Converse Consultant's Technical Memorandum for the Butterfield Specific Plan shall be properly capped and any associated pipeline abandoned and/or removed from the site pursuant to applicable State and federal Guidelines.

HAZ-5 Prior to issuance of grading permits, the following remediation efforts shall occur:

- The batteries, auto parts, tires and the diesel engine observed on the concrete pad next to the well and any associated fuel sources shall be removed and disposed of in compliance with all applicable regulations by waste haulers certified by the State for the handling and disposal of such wastes;
- Piles of asphalt debris and inert trash observed in various locations throughout the property shall be removed following their inspection by a hazardous waste consultant and, if required, by a cultural resource consultant and the material removed and disposed of pursuant to all applicable laws and regulations.
- Prior to the removal of any potentially hazardous debris, additional environmental assessment and testing shall be completed pursuant to the recommendations of a certified environmental consultant and appropriate

methods of handling and disposal shall be identified and implemented pursuant to existing (or then current) regulations and procedures for any particular hazardous waste or toxic material identified.

Impact Analysis - High Pressure Gas Line

Determination: Less than Significant with Mitigation Incorporated

The Phase I ESA update (2007) identified the presence of a high-pressure natural gas pipeline traversing the Project site. Accidental or intentional rupture of the underground natural gas pipeline during grading, trenching or other construction-related activities could result in environmental contamination, fire, or explosion. The risk of an accidental rupture would be greatest during the site clearing and excavation phases, when earthmoving and utility trenching equipment are adjacent to a pipeline. Relocation of a portion of the pipeline is anticipated as part of the proposed development; refer to Exhibit 3.0-6C, *High Pressure Gas Line Location*. In the developed condition the top of the pipeline would generally be between four to six feet below the top of pavement within the public right-of-way and approximately three to four feet bgs where it traverses the golf course. The gas line may need to be lowered further in limited areas of the golf course, such as under the realigned Smith Creek, in order to accommodate surface features.

California Government Code 4216 regulates excavation in the vicinity of subsurface installations. CGC 4216 classifies natural gas pipelines as “high priority subsurface installations” that would be potentially hazardous to workers and the public if damaged and requires: (1) verification of all excavation areas with the Underground Service Alert (USA); (2) notification of regional centers, in this case, the Underground Service Alert – Southern California Regional Center,¹⁷ and the purveyor of scheduled earthmoving activities in proximity to the pipeline prior to commencement of excavation; (3) demarcation of the pipeline location; and avoidance of the pipeline area to the extent feasible. Mitigation Measure HAZ-6 would require contact with DigAlert prior to the start of grading operations and close coordination with SCGC prior to and during grading and trenching activities in the vicinity of the pipeline to provide the maximum feasible protection of workers and property.

The majority of the pipeline traversing the Project site is not PUC-rated residential grade pipe as the pipeline was installed when the area was in agricultural use. Development of the Project site will increase the density surrounding the pipeline easement and require implementation of mitigations to reduce the risk of upset associated with that development. As noted, those mitigations may include reduction in the pressure under which natural gas is transported through the pipeline and/or replacement of the pipeline with PUC-rated residential grade pipeline as determined by the PUC. As adjacent sites have developed SCGC has replaced pre-

¹⁷ DigAlert, Underground Service Alert of Southern California, <http://www.digalert.org/index.asp>, accessed 12.10/2010

existing pipeline with PUC-rated residential grade pipe. Mitigation Measure HAZ-7 would require the Applicant to ensure that the same replacement would occur within the Project site prior to the issuance of building permits for structures located within 100 feet of the outer edge of the pipeline easement and prior to the paving of streets under which the pipeline would be situated. In addition, HAZ-7 would require appropriate horizontal and vertical separation between the pipeline and both wet and dry utility installations and crossings and monumentation to mark the location of the pipeline through the developed Project site.

It should be noted that when the adjacent Sundance project in the City of Beaumont was developed, the Gas Co. replaced the pipeline through that project and further to the west, and also replaced non-residential grade pipeline to the east through the Fiesta project (Tract 30906). As part of this work the Gas Co. replaced the non-residential grade pipeline a distance of 600 feet into the Butterfield project site from both the west and east boundaries. It is typically acceptable for public streets and the golf course to overlay the pipeline along its alignment through the Project site; however residential lots may not overlay the pipeline.¹⁸ Accordingly, the Project has been designed to ensure that the pipeline is located under the public streets or within the golf course area.

School sites are required to observe a 1000' setback from the outer edge of the high pressure gas line easement. As currently located, the southerly proposed school site in Planning Area 20 is approximately 1,400 feet from the gas line and the northerly school site in Planning Area 68 is over 8,000 feet from the gas line. Accordingly, both proposed school sites meet these setback requirements.

Current law and regulation does not require definitive setbacks between residential structures and high pressure natural gas pipelines. In 2008, the U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration initiated the *Pipeline Informed Planning Alliance (PIPA)* to develop land use guidance for activities on and near pipeline rights-of-way in response to *Special Report 281: Transmission Pipelines and Land Use: A Risk-Informed Approach*, prepared by the National Academies' Transportation Research Board (TRB) in 2007;¹⁹ however, no official findings have been adopted and no guidance has been provided to date as result of this DOT effort. There are no State regulations or local ordinances that address this issue.

Mitigation Measures

HAZ-6 The contractor shall ensure that precautions are taken to avoid the Southern California Gas Company pipeline observed crossing the property diagonally from

¹⁸ Specific easement conditions, pipeline alignments, and construction details are developed on a case-by-case basis following PUC and Gas Company policies and regulations.

¹⁹ US DOT, PHMSA, PIPA Discussion, Risk-Informed Land Use Planning, 2009, <http://primis.phmsa.dot.gov/comm/publications/FamiliarizationMaterial-RiskInformedLandUseDecisions-Edited-20090501-hmw.pdf?nocache=1228>, accessed 9.28.2010.

the west-center of the Project site to the southeast corner and that may be present along the alignments of the proposed off-site infrastructure. Such precautions shall include calling Dig Alert prior to any construction activity to determine and mark the exact location of this pipeline and close coordination with Southern California Gas Company to ensure that appropriate measures are taken by SCGC, including potential reduction in pressure and on-site monitoring, to protect both workers and the pipeline from accidental damage during grading activities. The appropriate identification and setbacks shall be maintained in order to ensure the safety of adjacent properties.

HAZ-7: The Applicant shall ensure that the existing high pressure gas line is replaced by the operator with pipeline that is PUC-rated for location in residential areas. Replacement of the pipeline and required relocation shall occur prior to trenching for sewer, water and storm drain within 25 feet of the outer edge of the pipeline easement and/or prior to the issuance of building permits for residences located within 100 feet of the ultimate pipeline alignment and prior to the paving of any roads within the pipeline alignment. Unless directed otherwise by the PUC, wet utility crossings shall observe a minimum ten-foot vertical separation and ten-feet of horizontal separation from the pipeline, to the extent feasible given the needed depth of utility services. Undergrounded electrical services shall observe a minimum 10 foot horizontal separation from the pipeline. The location of the pipeline shall be indicated with appropriate curbside notation and/or monuments at minimum 50-foot intervals along its route and by ground-level monumentation through the golf course, or at intervals required by the PUC.

Pursuant to existing regulations, implementation of Mitigation Measures HAZ-6 and HAZ-7, the risk of upset associated with the presence of an operating high pressure natural gas pipeline would be reduced to a less than significant level.

Impact Analysis – Radon

Determination: Less than Significant

Radon is a naturally occurring radioactive gas, usually found in igneous rock and soil and is a carcinogen that can cause lung cancer with prolonged exposure at certain levels. *The Radon Act 51* set the natural outdoor level of radon gas (0.4 pCi/L) as the target radon level for indoor radon levels. The US EPA has set an action level of 4 pCi/L. The Project site is located in Riverside County, which is classified by the EPA as Zone 2, defined as having a predicted screening level of 2 to 4 pCi/L²⁰. This classification indicates that there is a potential for slightly elevated levels of radon to be present in the Riverside County area. However, the radon zones

²⁰ Technical Memorandum – Hazardous Materials Review, Converse Consultants, March 12, 2007.

are linked to counties and not necessarily to a specific location within the County. Typically, mountainous areas present a higher risk for radon exposure due to the presence of igneous rock and soil, while the risk for alluvial plain areas, where the Project is located, is lower. Since the majority of the project site is located on an alluvial plain, hazards involving potential exposure to naturally occurring radon are considered to be less than significant.

Impact Analysis – Construction Phase Accidental Releases

Determination: Less than Significant with Mitigation Incorporated

The proposed Project includes approximately four phases of mass grading as well as multiple phases of rough grading and precise grading for each of the residential neighborhoods, golf course, and commercial site. Grading involves the use of heavy equipment, which must be fueled and serviced on the site during the course of grading operations. The first phase of mass grading in particular, which is expected to involve approximately 850 acres of the Project site and require approximately 4 million cubic yards of raw cut and fill plus 3 million cubic yards of remedial grading, will require the use of approximately 20 pieces of heavy equipment each day through the completion of the phase. Heavy equipment requires refueling during the course of the workday as well as on-site maintenance both during and after construction hours. Fuel may be stored in temporary above ground storage tanks and/or may be supplied by tanker trucks. In either case, accidental spillage could result from on-site storage and/or refueling activities. The State Water Resources Control Board, with EPA concurrence, has determined that any above ground petroleum storage tank in California has a reasonable possibility of discharging oil in harmful quantities.

The *Riverside County Certified Program Agency* (CUPA) for Riverside County is authorized to ensure that above ground petroleum storage tanks with single tank capacity greater than 1,320 gallons or with a cumulative storage capacity of 1,320 gallons stored in containers of 55 gallons or greater have in place a Spill Prevention Control and Countermeasure (SPCC) Plan in place pursuant to the provisions of the *California Aboveground Petroleum Storage Act* (APSA). The SPCC would include provisions that would ensure that containment and other countermeasures would be put in place to prevent oil spills that could reach navigable waters of the U.S. or waters of the State. Smith Creek, which traverses the center of the project site, and Pershing Channel, located along its eastern boundary, have connection to traditionally navigable waters. Accordingly, any above ground fuel storage facility located on the Project site would include provisions in the SPCC plan to prevent contamination of both drainages. Enforcement of these requirements is the responsibility of the County Department of Environmental Health through its *Aboveground Storage Tank Program*.

Conditional California APSA Exemptions exempt some facilities from preparing an SPCC plan. This conditional exemption applies to a farm, a nursery, logging site and a construction site (note that a construction site is the portion of the facility that is actually undergoing

construction. A construction *yard* is not a construction site). This exemption applies if: (1) no aboveground tank exceeds 20,000 gallons; and (2) the cumulative storage capacity at the site is less than 100,000 gallons. To maintain this exemption the facility must conduct daily inspections of the aboveground tank(s), be inspected by the local CUPA and install secondary containment if required; however, these facilities may still be required to prepare and implement a Federal SPCC plan and in the case of the Project site, its proximity to navigable waters would dictate the need for one, as indicated above.

Installation of temporary above ground fuel storage on construction sites may also be regulated locally. The County of Riverside Fire Department, which provides comprehensive services to the City of Banning, enforces the provisions of *Riverside County Ordinance 546 (Fire Protection Regulation)*. Division XII of the Ordinance regulates the storage of liquefied petroleum gases and limits the capacity of such tanks to no more than 2,000 gallons. Installation of above ground fuel storage tanks requires a permit from the County Fire Department and compliance with the provisions of *Riverside County Ordinance 546* and *Chapter 49 of the California Fire Code*. The City of Banning has also adopted the 2010 *California Fire Code* as part of its *Municipal Code* and the County regulations would apply to the proposed Project. To further minimize the potential risk of upset impacts that could be created by an above ground fuel storage tank Mitigation Measure HAZ-8, which requires appropriate permitting prior to installation and appropriate site maintenance and use subsequent to installation, shall be required.

In the event hazardous substances and/or contaminated soil are encountered during site grading, work shall immediately cease in the area and the property owner/developer shall notify the Riverside County Fire Department Hazardous Materials Unit located in FS 20 in Beaumont, the County Department of Environmental Health HAZMAT team in Riverside, and City Public Works Department. Additionally, implementation of mitigation measure HAZ-3 would ensure that the Project site is remediated of all existing potentially hazardous materials, including batteries, pipelines, engines, tires and other debris.

Mitigation Measures

Mitigation Measure HAZ-8 requires permitting and appropriate maintenance, containment and operation of any above ground temporary fuel storage tank during the Project's construction phase. Together with the enforcement of existing regulations and regular inspections by the City and/or the Fire Department pursuant to the permit conditions, the risk of upset from the installation and operation of an above ground fuel storage tank would be reduced to a less than significant level.

HAZ- 8 A permit shall be obtained from the Riverside County Fire Department (Banning Services Unit) and, if required, from the County Department of Environmental Health, prior to installation of any temporary above ground fuel storage tank on the Project site.

- A hazardous materials business plan consisting of an owner/operator page, a chemical description/inventory page, and a site map must be submitted with the application for permit.
- The storage area shall be kept free of weeds and extraneous combustible material.
- Plans must be submitted for approval prior to installation. Aboveground fuel/mixed liquid tanks(s) shall meet the following standard: Tank must be tested and labeled to UL2085 Protected Tank Standard or SwRI 93-01. The test must include the Projectile Penetration Test and the Heavy Vehicle Impact Test. A sample copy of the tank's label from an independent test laboratory must be submitted with the tank plans.
- The tank shall be kept 50 feet from buildings and conspicuously marked with the name **DIESEL** and **COMBUSTIBLE – KEEP FIRE AWAY**.
- The tank shall be located within a secondary containment area such as earthen berms covered from end to end by a thick mil plastic. Concrete or steel may also be used to provide secondary containment. /show calculations for secondary containment on the Site Plan.
- The tank shall be secured to prevent movement on the containment surface or be mounted on metal skids (not on an elevated stilt rack).
- The project manager or contractor shall contact the fire department representative for inspections at the time prior to when product is put into the tank to verify compliance, **AND** at the time when the tank is removed from the site to check for evidence of ground contamination.

Impact Analysis – Operational Phase Impacts

Determination: Less than Significant with Mitigation Incorporated

Refer to above discussion under Impact 4.8-1.

Impact 4.8-3: School Safety

Threshold: Would the proposed Project result in hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Determination: Less than Significant

At final build-out, the proposed Project would consist of 5,387 dwelling units, 35.8 gross acres of commercial uses, two elementary school sites, a golf course, parks, drainage area, natural open space and slope/common area landscape. In addition, two schools exist within ¼ mile of the Project site: Sundance Elementary School, located at 1520 E. 8th Street in Beaumont; and Calvary Christian School, located at 1325 North Mountain Avenue in Banning.

Two elementary schools are proposed within Planning Areas 20 and 68. Residential, commercial and park uses would be located within 0.25 miles of the proposed school sites. Residential uses, commercial uses, and parks would involve the storage or use of hazardous materials (i.e., household cleaners, automobile oil, gardening chemicals, etc.); however, the small volume and low concentration of these materials would make the risk of upset less than significant.

A Southern California Edison easement runs through the middle of the Project in an east-west direction. The smaller power line in the northerly 100-foot-wide easement is in the 115 kilovolt (kV) range, and the larger line in the 330-foot-wide easement is in the 220 to 240 kV range. SCE, however, is pursuing Public Utilities Commission approval to install 500 kV lines in these easements (a separate action from the proposed SCE power line relocations discussed above). The amount of required setback between the SCE easement and any school site per the State limits would be determined based on the kV size of the power lines. The PA 68 school site is located in proximity to the SCE easement. Pursuant to state law, the site must be located at least 350 feet north of the easements due to the potential future 500 kV lines. Per the State limits, the required setback is measured from any part of the school site to the edge of the easement. The proposed school in PA 68 is located beyond the required 350-foot buffer and, therefore, impacts to schools associated with the power line location would be less than significant. The Planning Area 20 school site is also located more than 350 feet from the edge of the central SCE transmission line easement.

Neither of the proposed on-site schools would be located within 1,500 feet of the existing or relocated high pressure gas line. Were any of the school sites changed subsequent to the adoption of the Specific Plan, new sites would be subject to the same setback requirements by existing regulations. Accordingly, impacts to school safety associated with utility locations would be less than significant.

Impact 4.8-4: Affect Known Hazardous Materials Site(s)

Threshold: *Would the proposed Project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?*

Determination: Less than Significant

As previously noted, a Phase I Environmental Site Assessment was prepared for the Project site, including the 21-acre parcel added to the original Deutsch Specific Plan Project site. Pursuant to *Government Code Section 65962.5*, an Environmental Database Report (EDR) of Standard Environmental Record Sources (records) was prepared specifically for the Project site. No portion of the site was identified on any hazardous materials database in the EDR report. While properties in the vicinity of the Project site were identified as potential sources of hazardous materials and/or contaminants, it was determined that these nearby properties represent a low risk due to the nature of their contamination and their distance from the Project site; refer to the Phase I Site Assessment located in Appendix F for more information.

Impact 4.8-5: Emergency Management Plans

Threshold: *Would implementation of the proposed Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Determination: Less Than Significant with Mitigation Incorporated

The City adopted a Multi-Hazard Functional Planning document in 1996. The document is organized into three parts, which include: 1) the Banning Emergency Plan; 2) twelve functional annexes that describe the emergency response organization; and 3) a listing of operational data such as resources, key personnel, and essential facilities and contacts. The Emergency Plan addresses the City's planned response to extraordinary emergency situations associated with natural and man-made disasters and emergencies including earthquakes, wildfire, explosion, and major hazardous materials incidents. The proposed Project would not impair implementation of the City's Emergency Plan. The City has not established emergency evacuation routes although, depending on the location and extent of an emergency, major surface streets and I-10 could be utilized to route traffic through the City. The Project would be required by current regulations to provide adequate ingress and egress, street width, turning radius, fire hydrants and adequate fire flow before certificates of occupancy could be issued. The presence of adequate fire flow and paved access would be certified by the Fire Department. That certification is required by the City prior to permitting the delivery of combustible materials to the Project site or the erection of building framing. The requirement is enforced by City inspection and Fire Department inspection during the construction phase.

On-site construction phase activities that could interfere with emergency access include extensions of utility infrastructure that could close, or partially block streets within the occupied areas of the Project for periods of time. Implementation of mitigation measure HAZ-9 would require pre-construction consultation with the Fire Department to establish protocols for response and access by emergency vehicles during each phase of Project construction. Adequate fire flow would be required on site, and would be verified by the Fire Department,

before wood for vertical construction could be dropped on the site pursuant to existing regulations.

Implementation of off-site infrastructure could potentially result in diminished emergency response times in affected areas due to construction traffic and partial road closures during roadway and pipeline improvements. Mitigation measure HAZ-10 would require preparation and implementation of a construction traffic management plan would ensure that evacuation and emergency response routes remain functional during all construction phases both on and off-site. Approval of the Plan by the City and potentially by the Fire Department prior to the issuance of encroachment permits allowing work within the public right of way. Enforcement of the provisions of the approved Traffic Control Plan would be the responsibility of the City during the course of Project construction.

Mitigation Measures

HAZ-9: Prior to the approval of Final Tract maps, the City Engineer and Riverside County Fire Department (Banning Services Unit) shall discuss with the Applicant approximate locations of work activities and ingress and egress points in and out of the construction site to assure there is adequate access and communications protocols for emergency response vehicles during each of the proposed construction phases.

HAZ-10: Prior to the issuance of grading permits or road encroachment permits, a Traffic Management Plan providing safety control measures for area-wide streets that would be affected by construction traffic and activities must be prepared by a licensed civil or traffic engineer, to the satisfaction of the City Engineer, that would minimize safety hazards and emergency access impacts. The temporary measures in the Traffic Management Plan could include: flaggers, temporary lane restriping, temporary lanes, caution signs, reduced-speed zones, temporary detours, and other safety and traffic control devices.

With implementation of existing regulations and Mitigation Measures HAZ-9 and HAZ-10, the construction phase impacts of the Project on emergency access and response would be reduced to a less than significant level.

Impact 4.8-5: Wildland Fires

Threshold: *Would implementation of the Project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildland?*

Determination: *Less Than Significant with Mitigation Incorporated*

Portions of the Project site are locally designated Hazardous Fire Areas and the site also includes property designated as High, and Very High fire hazard severity zones by the City's General Plan and the State FHSZ mapping program; however, pursuant to the Cal Fire 2010 Very High Fire Severity Zone Map, only a small portion of the Project site is located within a Very High Fire Hazard Severity Zone (VHFHSZ), as shown on the Exhibit 4.8-1, *Wildfire Susceptibility Map*.²¹ The State-designated VHFHSZ corresponds with PA 73.

Development of the Specific Plan site will gradually introduce homes, roadways, and water infrastructure into the project site, resulting in changes in the configuration and characterization of existing fire threat or fire hazard zones. *The 2010 State Fire Code, 2010 California Residential Code and the 2010 California Building Code* all contain specific requirements for construction and fuel management within Urban Wildland Interface Areas pursuant to the fire hazard severity zone determined by the State's mapping program.

The City's General Plan relies on the State's FHSZ mapping program to designate and rate fire severity hazard areas. Based on current designations and definitions development of the Specific Plan would likely result in incremental changes in wildfire threat rating and UWI-related impacts:

1. Development within portions of the property currently classified as "No Fuel/Non-burnable Open Space" would result in a re-designation of those areas most proximate to Wilson Street, Highland Springs Avenue and improved portions of Highland Home Road to "Urban/Non-Zoned," defined as developed areas spatially removed from proximity to wildland fire areas by 200 feet to 0.75 mile, depending upon the availability of water infrastructure, terrain and ease of access for emergency equipment.
2. Development areas within those areas of the site proximate to designated "High" fire hazard severity zones could be incrementally reclassified to either "Urban/Non-Zoned" areas (particularly those located in proximity to Wilson Street and Highland Home Road in the southeastern portion of the site) and to "Moderate" fire hazard severity zones for development occurring adjacent to designated "High" and "Very High" fire threat zones, until such time as development extends into "High" and "Very High" designated areas. In these areas temporary fuel modification zones might be required by the Fire Department along the development perimeter of specific subdivisions.
3. Development within areas currently designated "High" fire hazard severity zones could result in the incremental reclassified of the area to "Moderate" or

²¹ Cal Fire, Very High Fire Hazard Severity Zones in LRA, as recommended by Cal Fire 1/2010, http://frap.cdf.ca.gov/webdata/maps/riverside_west/fhszl_map.60.pdf, accessed 7/23/10.

“Urban Non-zoned” fire threat zones depending upon the distance of each development project from the boundaries of the remaining undeveloped “Very High” fire hazard severity zone areas, the terrain, ease of access, and response times of locally based first responders.

4. Development within areas currently designated as “Very High” fire hazard severity zones could result in incremental reclassification of at least portions of this area to “Moderate” or “High” fire hazard severity zones, based on distance from remaining undeveloped “Very High” fire hazard severity zones and/or VHFSHZ areas. Development located within 0.25 mile of remaining “Very High” fire hazard severity zones and/or at the developed edge of off-site “Very High” fire hazard severity zones could be reclassified to “High” fire hazard severity zones, although implementation of defensible space features and fuel modification strategies could significantly reduce hazard even in these areas.
5. While the edges of PAs 69, 73, and 75 adjacent to natural, undeveloped open space are the areas that most clearly meet the California Fire Code and 2010 CBC/CRC definition of a UWI area in the ultimate development condition, the Project also proposes low- and medium density residential development for the nearby PAs 50, 51, 60, 61 and 52 as well as a school site located on PA 68. Because of their proximity (0.25 mile or less) to undeveloped wildland areas these PAs could continue to be considered “High” fire hazard severity zones. Road standards designed to accommodate fire equipment, and signage identifying streets, roads and buildings, when combined with the fuel modification at the UWI in PAs 69, 73, and 75 would reduce the potential impacts related to wildland fires on human life and property in the build out condition within these nearby planning areas.

Fire hazard severity zone changes would occur incrementally, and in many cases more than once as the Project site develops, with areas changing designation as wildland interface boundaries retreat from the individual tract edges due to additional development. Each subdivision, as it proceeds, will need to be evaluated by the Fire Department to determine the risk posed by wildfire at the time the subdivision is built and the need to implement, on a temporary or permanent basis, the fire reduction strategies typical of UWI areas. Implementation of interim fuel modification zones may be required at the time of construction even though the hazard posed to structures within the subdivision will ultimately be reduced as development continues within the Specific Plan area.

Chapter 7A of the 2010 CBC, Section R327 of the 2010 CRC, both adopted by the City of Banning as part of its Municipal Code, and the County Fire Department’s UWI Standards require submission of a Fire Management Plan or Fuel Modification Plan (FMP), prepared pursuant to the requirements of the 2010 CBC and/or CRC and the California Fire Code, Chapter 49. In the City of

Banning, preparation of a FMP and its approval by the Fire Department is required prior to the approval of any Tentative Tract Map or Land Use Permit for property adjacent to natural open space pursuant to the *Municipal Code* as amended in December 2010, when the City adopted the 2010 CFC as its *Fire Safety Code*. In addition, the 2010 building codes require specific construction methods and materials for residential units built in UWI areas. Since the City has adopted these codes in their entirety by amending its *Municipal Code*, the City would enforce all of these requirements during plan check precedent to the issuance of building permits and during the life of the project, through periodic inspection of fuel modification zones by the Fire Department acting as the City's agent.

The *Fire Department Urban-Wildland Interface Standards* require inclusion of a definition of standards, fuel modification zone locations, the species of plants to be used, building construction, roadway widths, emergency access, design, maintenance, timing, financing and other applicable conditions related to fire protection as part of the FMP. The Butterfield Specific Plan Project will be required to comply fully with all of these requirements.

Maintenance of fuel management zones located within private lots are the responsibility of the property owner; however, a fuel modification maintenance easement will be recorded over all fuel modification areas allow the Master Homeowners Association, neighborhood association or other appropriate maintenance agency/entity approved by the City of Banning to carry out maintenance activity as needed.

Lastly, according to the County Fire Department, service to the Project area could be inadequate after development extends north of Brookside Avenue and/or east of Highland Home Road unless equipment, personnel, and/or the fire station proposed for construction within the Project site is built and staffed. This issue is discussed in greater detail in Section 4.12.2.1, *Fire Protection Services*, and specific mitigation measures have been imposed in that section which require submission, review, and approval of a Fire Response Plan prior to the recordation of any final map for subdivisions within the Specific Plan area (Mitigation Measure PSU-1a) and which further prohibit the issuance of building permits for residential units north of Brookside Avenue and/or east of Highland Home Road until such time as a new fire station is constructed and operational, or until such time as the Fire Chief determines that adequate fire service can be provided (Mitigation Measure PSU-1b). These Mitigation Measures are referenced in this analysis and included as mitigation measures that address UWI wildfire issues.

Mitigation Measures

In addition to required compliance with the applicable provisions of the City of Banning's Municipal Code Chapters dealing with fire safety and its Building Code, which incorporate in their entirety the provisions of the 2010 CBC, 2010 CRC, the following Mitigation Measures are imposed to further reduce the potential impacts of wildfire that could be associated with the implementation of the proposed Project. With Project Design Features noted above, adherence

to the Fire Department requirements, applicable laws and regulations and implementation of these Mitigation Measures and Mitigation Measures PSU-1a and PSU-1b, Project impacts related to wildland fires would be reduced to a less-than-significant level.

HAZ-11: All proposed subdivisions within the Specific Plan project area shall be evaluated by the Fire Department to determine whether the Department's Urban-Wildland Interface requirements should be implemented as part of the development. If the Department determines that either an interim or permanent condition of high fire risk would be present, a Fuel Modification Plan that meets the then-current requirements of the Fire Department shall be prepared and shall be approved by the Fire Department prior to recordation of a Final Tract Map. Maintenance of interim fuel modification areas shall be the responsibility of the master Homeowners Association and/or the property owner and/or a LLMP and temporary maintenance easements shall be recorded over interim fuel modification areas. Such easements shall be quitclaimed when the Fire Department determines that additional new development has eliminated the need for fuel modification in these areas.

HAZ-12 Seed mix used for the temporary re-vegetation of graded areas that will remain as undeveloped open space for a period of 6 months or more shall consist primarily of drought-tolerant grasses that may combine native and non-native species. These mixes include grasses that require little maintenance and do not grow tall, but do provide sufficient vegetative coverage to be effective in controlling wind and water-caused erosion. Defensible spaces as defined by the Fire Department pursuant to Chapter 49 of the California Fire Code shall be maintained around the exposed perimeters of subdivisions abutting un-irrigated grassland and/or chaparral through weed abatement, mowing, and other fuel reduction/modification strategies.

HAZ-13 The applicant shall continue to provide annual fuel modification as required by City code. The annual fuel modification (thinning) shall also be conducted in the future development areas south of Highland Home Road extension as needed (which excludes PAs 50, 51, 52, 60, 61 and 73, which shall remain natural until such time these areas are developed or require infrastructure improvements).

4.8.5 CUMULATIVE IMPACTS

Determination: Less than Significant with Mitigation Incorporated

The developer(s) and contractor(s) would be required to conform to all applicable hazardous materials and hazardous waste standards, permit conditions, and regulations during its construction phase. Hazardous materials used, or hazardous waste generated, during the

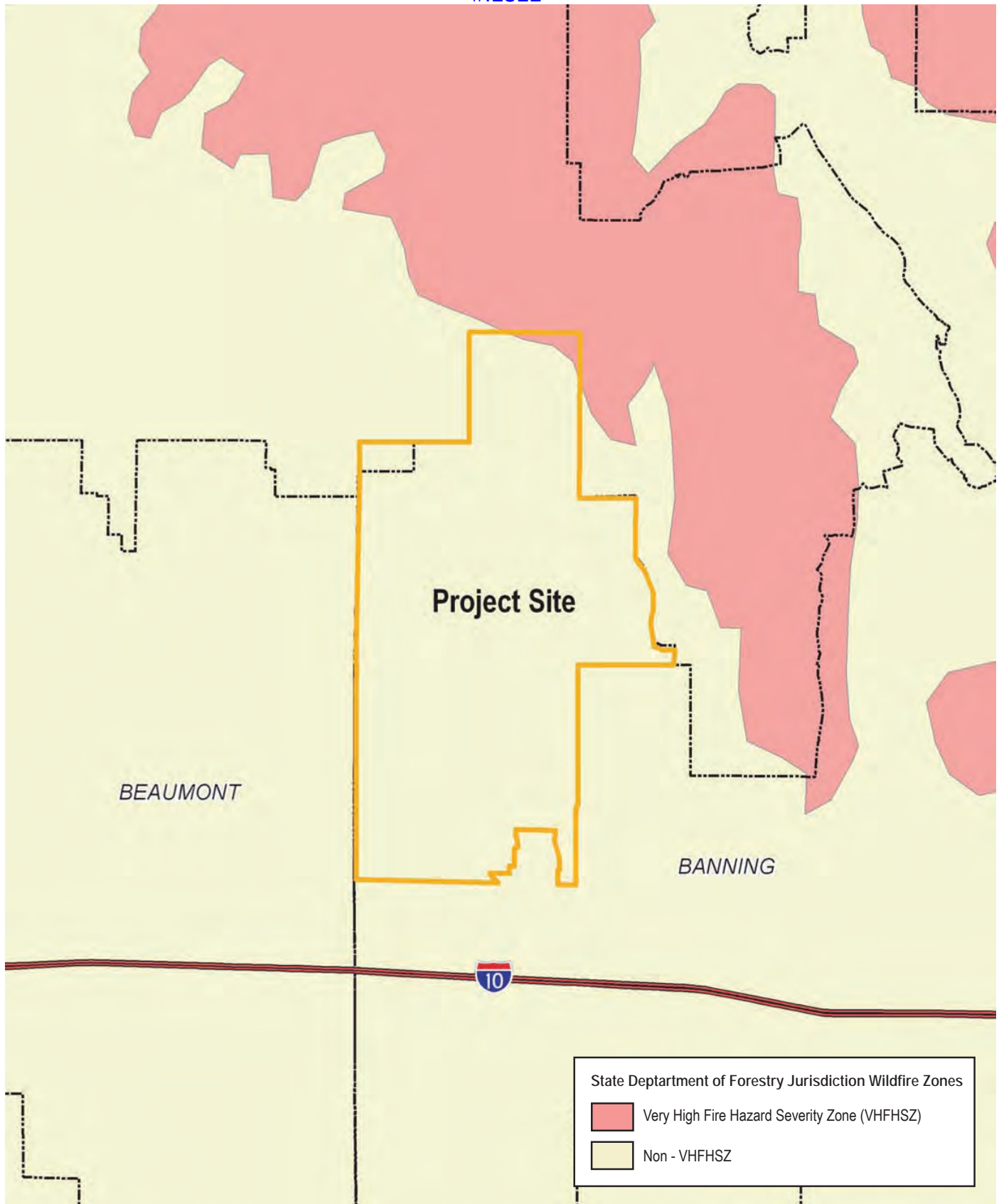
operational phase of the Project would not be quantitatively significant. Accordingly, the proposed Project's contribution would not be cumulatively considerable and would be considered less than significant with mitigation incorporated.

Development of the proposed Project would increase the number of residential structures located in urban-wildland interface areas within the City of Banning and therefore the number of structures and persons vulnerable to the effects of wildfire. This is a potentially significant cumulative impact. Records of historical wildfires in California indicate that structure losses, loss of human life, and injury related to wildfire increase as development encroaches on or adjacent to wildland areas. The proposed Project would be one of many developments existing, planned and future developments within the City of Banning, the neighboring City of Beaumont, and adjacent unincorporated areas that would be built in the vicinity of fire-vulnerable wildlands. However, new development would be required to implement the most current State and local codes and regulations regarding creation of defensible space, creation and maintenance of fuel modification zones, building code requirements, and landscape requirements designed to significantly improve the ability of structures to survive wildfire. In addition, new development will extend streets and water infrastructure and pay fees that will enable the construction of additional fire stations and the purchase and maintenance of additional equipment while improving access to adjacent wildlands. The recent history of fire risk at the UWI demonstrates the effectiveness of these measures in protecting structures and lives. Accordingly, with adherence to existing and future laws, ordinances, and regulations and implementation of appropriate Mitigation Measures mandating uniform and effective maintenance of defensible space/fuel modification areas the risk posed by new construction in UWI areas would be reduced to less than cumulatively considerable.

4.8.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With adherence to federal, State, and local laws, ordinances, and regulations pertaining to the use, disposal, storage, handling, and transport of hazardous materials, and with the implementation of Mitigation Measures HAZ-1 through HAZ-10 the proposed Project would result in less than significant impacts with regard to hazards and hazardous materials.

With adherence to federal, State, and local laws, ordinances, regulations, and standards, Mitigation Measures HAZ-11 through HAZ-13, and PSU-1a and PSU-1b the proposed Project would reduce its impacts to a less than significant level as regards vulnerability to wildfire and its related impacts on human life and property.



SOURCE: State Dept. of Forestry & Fire Protection, Riverside County (West)
Fire Hazard Severity Map, recommended January 2010, accessed March 23, 2010

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

Wildfire Susceptibility Map



NOT TO SCALE

5/27/11 JN: 65-100290

AR 003970

EXHIBIT 4.8-1

AR000574

SECTION 4.9

HYDROLOGY AND WATER QUALITY

4.9.1 INTRODUCTION

This Section evaluates the potential impacts of the proposed Project on hydrology, drainage and water quality, and recommends mitigation measures to reduce the significance of such impacts. Information in this section is based on the City of Banning *General Plan* (2006); City of Banning *General Plan Final Environmental Impact Report* (2005); *Butterfield Specific Plan* prepared by RBF Consulting (May 2011); City of Banning *2010 Urban Water Management Plan* (May 2011); *Banning/Deutsch Property Backbone Drainage Study* prepared by RBF Consulting (August 2006); the *Geotechnical Investigation for the Deutsch Property Highland Springs Avenue and Wilson Street, Banning California* prepared by Geocon (June 2005); geotechnical data prepared by Geocon (Appendix E); the *Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units and Available Water Supply from the Beaumont Basin* prepared by Geoscience Support Services (May 2011); and a suite of regulatory service reports prepared by Glenn Lukos Associates (contained in Appendix C) and other available resources. The *Banning/Deutsch Property Backbone Drainage Study* is included in its entirety in Appendix G. Regional, local and Project site water supply is addressed in detail in Section 4.14 (*Water Supply*) and will not be a part of this Section's analysis.

4.9.2 EXISTING CONDITIONS

4.9.2.1 ENVIRONMENTAL SETTING

Regional Location and Climate

The 1543-acre Project site is located in the City of Banning, California at the City's western boundary. The site is north of and adjacent to Wilson Street, east of and adjacent to Highland Springs Avenue and west of and adjacent to Highland Home Road, in the City of Banning, California. The project site is divided into 78 Planning Area's (PA) corresponding to density designations in the Specific Plan. Exhibits 3.0-1 *Regional Location Map* and 3.0-2 *Local Vicinity Map* show the Project site and immediate surroundings.

The area's climate is characterized by cool winters and hot summers. Precipitation in the region generally occurs as rainfall, although snowfall can occur at high elevations. Most precipitation occurs during just a few major storms. Mean annual rainfall in the Banning area for the period of record is approximately 17.60 inches per year, with approximately 92 percent occurring from November through April. Mean annual minimum temperature is 51.8 °F and mean annual maximum temperature is 78°F. The highest average maximum temperature of 96.6°F occurs in August and the lowest average minimum temperature of 39.4°F occurs during January. Both the temperature and precipitation information presented in Tables 4.9-1 and 4.9-2 is derived from measurements taken at the Beaumont 1E Weather Station, located approximately 5 miles

west of Banning and the Riverside County Flood Control District Station 12 in Banning respectively.

Table 4.9-1
Normal Temperatures in Banning CA

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Max °F	63.7	66.2	68.3	74.0	80.2	89.5	96.3	96.6	91.4	82.3	71.6	64.7	78.7
Mean °F	51.8	53.2	54.7	58.8	64.4	71.6	77.6	78.1	74.1	66.2	57.3	52.1	63.3
Min °F	39.8	40.2	41.1	43.6	48.6	53.7	58.8	59.5	56.7	50.0	43.0	39.4	47.9

Source: California Weather Profiles/Banning CA Weather (July 28, 2010)

Note: The WSA (Appendix J) and the 2010 UWMP contain different average climate data than what is presented in Table 4.9-1 and 4.9-2. The WSA and UWMP use source data from the City of Banning Year End Water Production Report 2010, Prepared by Pat Logan.

Table 4.9-2
Normal Precipitation in Banning, CA

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Inch	4.18	4.07	3.72	1.10	0.73	0.21	0.27	0.23	0.63	0.72	1.44	2.00	19.30

Source: California Weather Profiles/Banning, CA Weather (July 28, 2010)

Regional Surface Water Hydrology

The primary responsibility for the protection and enhancement of water quality in California has been assigned by the California legislature to the State Water Resources Control Board. For planning purposes, the Board divides California into nine hydrologic regions (HR). Each region is divided into major hydrological units (HU), each HU is further divided into hydrologic areas (HA) and each HA is further subdivided into hydrologic subareas (HAS). In accordance with the original Department of Water Resources definitions, HUs are the entire watershed of one or more streams; HAs are major tributaries and/or major groundwater basins within the HU; and HSAs are major subdivisions of HAs including both water-bearing and non-water bearing formations.

The Project site is located at the northwesterly boundary of the Colorado River Hydrologic Region (HR), Salton Sea Transboundary Watershed, in the Whitewater River Hydrologic Unit (HU), the San Gorgonio Hydrologic Area (HA), and the Banning Hydrologic Subarea (HAS), and falls under the jurisdiction of the Colorado River RWQCB (Region 7).¹

¹ California Regional Water Quality Control Board, Colorado River Basin Region, *Water Quality Control Plan for the Colorado River Basin – Region 7*, June 2006 Update, Region 7 Index (Colorado River Basin Maps), Report available

The westernmost part of the City of Banning Planning Area is located at the summit of the San Gorgonio Pass, which divides two major watersheds: the San Jacinto River watershed to the west, under the jurisdiction of the Santa Ana Regional Water Quality Control Board, and the Salton Sea Watershed, under the jurisdiction of the Colorado River Basin Regional Water Quality Control Board, to the east. The watershed boundary is defined by a surface water drainage divide at the west end of the San Gorgonio Pass, between Banning and Beaumont that roughly corresponds to the alignment of Highland Springs Avenue, running north-south between the San Bernardino Mountains and the San Jacinto Mountains. The jurisdictional boundary between the two Regional Boards follows the same alignment; refer to Exhibit 4.9-1 *Regional Board Jurisdictional Boundary*. Highland Springs Avenue forms the western boundary of the Project site.

Surface drainage from the Project site is directed through the City of Banning and the Riverside County Flood Control District storm drainage system, which discharges to the San Gorgonio River, a tributary of the Whitewater River. The Whitewater River flows to the Salton Sea.

Regional Groundwater Hydrology

As noted previously, the Project site is located within the Colorado River Hydrologic Region (HR). The Region covers approximately 13 million acres (20,000 square miles) in southeastern California. Surface runoff drains to many closed basins or to the Colorado River. Many of the alluvial valleys in the region are underlain by groundwater aquifers that are the sole source of water for local communities. The Colorado River Hydrologic Region contains 63 groundwater basins and additional subbasins.

- **Coachella Valley Regional Groundwater Basin (CVRGB)**

The City of Banning is located in the Coachella Valley Regional Groundwater Basin (Basin Number 7-21) and is part of the Colorado River Basin Water Quality Control Board-designated Coachella Valley Planning Area (CVPA). The CVPA contains both the Whitewater Hydrologic Unit, in which the Project is located, and the East Salton Sea Hydrologic Unit. The Basin includes four subbasins, including the San Gorgonio Pass groundwater basin (Basin No. 7-21.4), which provides groundwater that serves the Project site. Groundwater in the CVPA is stored principally in the unconsolidated Pleistocene sediments and is generally unconfined. The CVPA is faulted extensively, altering groundwater movement. The Mission Creek, Banning and San Andreas faults form effective barriers to groundwater movement.

at http://www.waterboards.ca.gov/coloradoriver/publications_forms/publications/docs/basinplan_2006.pdf, accessed 7/30/2010. Also see "Endnotes" for definitions of Hydrologic Units, Hydrologic Areas, and Hydrologic Subareas as used by the Regional Board

- **San Gorgonio Pass Groundwater Basin**

According to the *Water Supply Assessment* (Appendix J), the City's water resource area is located within the San Gorgonio Pass area in Riverside, California. It includes an approximately 158-square-mile watershed area in the San Gorgonio Pass and within the immediate highland areas of the San Bernardino and San Jacinto Mountains overlying the San Gorgonio Pass groundwater basin. The San Gorgonio Pass basin is bounded on the north by the San Bernardino Mountains and by semi-permeable rocks, and on the south by the San Jacinto Mountains. A surface drainage divide between the Colorado River and South Coastal Hydrologic Study Areas bounds the basin on the west. The eastern boundary is formed by a bedrock constriction that creates a groundwater cascade into the Indio Basin.²

- **Local Subbasins**

The San Gorgonio Pass groundwater basin includes five hydraulically connected groundwater basins, which constitute the City of Banning groundwater resource area: the Banning, Banning Bench, Banning Canyon, Cabazon, and Beaumont basins; refer to Section 4.14, *Water Supply*, Exhibit 4.14-1, *City of Banning Groundwater Basins*, for the location and boundaries of these local basins.

The current basin boundaries are those most recently defined in the 2006 USGS *Scientific Investigations Report 2006-5026*. The groundwater basins are defined by groundwater levels, bedrock outcrops and geologic faults, which were delineated based on significant differences in static water levels between wells or lack of pumping effects observed across basin boundaries (USGS 2006). The effect of the faults on groundwater movement is not well defined. However, it is generally known that they impede normal flow causing a difference in groundwater levels across the fault, but do not prevent flow from crossing the fault.

The water supply for agricultural and municipal uses in Banning is supplied by pumping groundwater from wells in the Canyon, Banning Bench, Beaumont, and Banning basins. The City discharges its treated wastewater over the Cabazon basin and operates one active well in this basin.

Groundwater recharge to the Banning area is obtained from precipitation infiltrating into the ground within the surface water catchments and particularly in the canyons north of the City. An additional source of recharge is subsurface inflow (i.e., underflow) from basin to basin, infiltration of Whitewater River diversions in the Banning Canyon, and from percolation of canyon flows through the gravelly soils of the canyon bottom. The San Gorgonio River running southerly through the Banning Canyon provides intake

² City of Banning, *Draft City of Banning 2010 Urban Water Management Plan*, prepared by Geoscience Support Services, Inc., dated May 2011.

areas for distributing water to spreading ditches that interconnect with spreading ponds located approximately one mile north of the Banning Bench to enhance percolation.³

The following provides a general description of each of the basins used by the City for domestic water production. A full discussion of water supply is provided in Section 4.14 (*Water Supply*) of this EIR. Estimates of annual safe yield for each of the basins are derived from the Geoscience *Maximum Perennial Yield Estimates* Report (May 2011).

- **Banning Canyon**

The Banning Canyon basin is located to the north of the Banning Bench basin. The total surface area of the basin is approximately 1,058 acres. The primary surface water drainage feature within this basin is the San Gorgonio River. The canyon bottom comprises alluvium and the canyon sides are bedrock. The City currently operates 8 active production wells within the Banning Canyon basin. Most of the City's groundwater is produced from the aquifer within this basin.

Additional recharge occurs through the operation of diversion of surface water from the upper reaches of the Whitewater River Drainage into Banning Canyon, which was initiated in 1913. The diverted water flows along steep mountain slopes for approximately 14 miles in a mostly concrete lined conveyance system known as "the Flume". Banning Heights Mutual Water Company utilizes approximately 1,000 AFY of Whitewater River diversions, the remainder of the diverted water flows into the San Gorgonio River below the Banning Heights Mutual Water Company abstraction point. A portion of the natural runoff and the Whitewater River diversions are diverted into spreading ponds located approximately one mile north of the Banning Bench to enhance percolation.

- **Banning Bench Basins**

The Banning Bench basin is located to the north of the Banning basin (refer to Exhibit 4.14-1, *City of Banning Groundwater Basins*). The total surface area of the basin is approximately 3,753 acres. The City of Banning currently operates three production wells within the Banning Bench, Wells 1, 2, and 3.

- **Banning Basin**

The Banning basin lies south of the Banning Bench basin and west of the Beaumont basin (refer to Exhibit 4.14-1). The total surface area is approximately 2,489 acres. The area is underlain by alluvial sediments, with bedrock occurring to the north in the San Bernardino Mountains. The City of Banning currently operates four active production wells within the Banning basin.

³ City of Banning, *2010 Urban Water Management Plan* prepared by Geoscience Support Services, Inc., May 2011.

- **Beaumont Basin**

The Beaumont basin covers approximately 19.5 square miles and is bounded on the north by the Banning and Cherry Valley Faults and on the south and east by the San Timoteo Canyon Fault, and the west by the Banning and Central Banning Faults. A portion of the Beaumont basin is located within the Banning, Calimesa and Cherry Valley city limits. However, this basin is primarily located within the City of Beaumont. Beaumont-Cherry Valley Water District (BCVWD), Yucaipa Valley Water District, and the City of Banning pump water from this basin as well as private users. The City operates five wells in the Beaumont basin.

- **Cabazon Basin**

The Cabazon basin encompasses approximately 26.9 square miles. The Cabazon basin is located near the eastern boundary of the City, southeast of the Banning and Banning Bench basins. Groundwater extraction is the result of production from the City of Banning Well C-6, Cabazon Water District, Mission Springs Water District as well as private producers.⁴

- **Local Basin Recharge**

Groundwater has been the only source of potable water supply for residential, industrial, and agricultural users in the Beaumont and Banning areas of the San Gorgonio Pass. Natural groundwater recharge is achieved through stream flow infiltration and percolation of rainfall and surface runoff in stream channels that flow from local mountains and hills. Recharge to the Banning and Cabazon basins occurs through underflow from the Beaumont basin. Additionally, underflow from the Banning Canyon basin flows into the Banning Bench, and from the Banning Bench into the Cabazon basin. Historically, groundwater extractions in the San Gorgonio Pass groundwater basin have exceeded natural recharge, resulting in declining water levels. To assure a continuous supply of domestic water to meet current and projected demand, groundwater replenishment (e.g., artificial recharge) programs and wastewater reclamation strategies have been, and are being, implemented by area water agencies and purveyors; refer to Section 4.14, *Water Supply*, for a more detail discussion of recharge activities.⁵

Sources of artificial recharge to the various basin basins including return flow from applied irrigation water on crops, golf courses, and landscape; septic tank seepage; infiltration of storm water runoff including its diversion into spreading basins; and the use of imported water applied to recharge ponds.

⁴ City of Banning, *2010 Urban Water Management Plan* prepared by Geoscience Support Services, Inc., May 2011.

⁵ City of Banning, *Draft 2010 Urban Water Management Plan* (May 2010).

One private water well is located on-site adjacent to Smith Creek north of Wilson Street. This well will be properly abandoned as part of the construction activities that occur on-site.

Regional Water Quality

Surface Water Quality

Surface water quality within the upper reaches of the Whitewater River watershed is generally good, with most parameters being consistent with the water quality objectives contained in the CRBRWQCB's Basin Plan. The lower reaches of the Whitewater River generally have higher nutrient concentrations and high bacteria counts are also observed in the downstream portions. Beneficial uses of Smith Creek and Pershing Channel are not specifically designated by the Regional Board; however, the beneficial uses of the downstream San Geronio River and the Whitewater River include municipal and domestic water supply, agricultural supply, groundwater recharge, water contact recreation, non-contact water recreation, cold freshwater habitats, and wildlife habitat. Common contaminants in urban and stormwater runoff in the region include:

- **Sediment**

Sediment is a common component of stormwater, and can be a pollutant at certain levels. Sediment can be detrimental to aquatic life by interfering with photosynthesis, respiration, growth, reproduction, and oxygen exchange in waterbodies. Sediment can also transport other pollutants that are attached to it including nutrients, trace metals, and hydrocarbons. Erosion and subsequent sedimentation is a natural process of the highly-erodible San Bernardino Mountains. Other sources of sediment include stream banks, bridge pilings, vacant lots, and construction sites.

- **Nutrients**

Nutrients, including nitrogen and phosphorous, are critical to the growth of plants; however, in high amounts, nutrients can result in excessive or accelerated growth of vegetation, such as algae, which can result in water quality impairment. Common sources of nutrients include fertilizers used in landscaping and agriculture, human and animal waste, and effluent from wastewater treatment facilities. Common measures of nutrients are total nitrogen, organic nitrogen, total Kjeldahl nitrogen (TKN), nitrate, ammonia, total phosphate, and total organic carbon (TOC).

- **Oil and Grease**

Oils and grease include a wide array of hydrocarbon compounds, some of which are toxic to aquatic organisms at low concentrations. Sources of oil and grease include leakage from tanks, pipelines, and old extraction sites, accidental spills, cleaning of

vehicles and equipment, leaks in hydraulic systems, and improper disposal of restaurant wastes and used oil.

- **Organic Compounds**

Organic compounds (e.g., adhesives, cleaners, sealants, solvents, etc.) may be found in urban stormwater runoff in low concentrations. The widespread use of these substances and their improper disposal are the common sources of these compounds.

- **Pesticides**

Bioaccumulation of pesticides can have adverse effects on aquatic life and the animals that consume that life. Some of these substances were prohibited long ago due to negative impacts but are still detected in low concentrations and are now termed “legacy” pollutants.

- **Gross Pollutants**

Trash, debris, and other floatables are the result of the improper use, storage, and disposal of packaging and other products in urban environments, plant debris, animal excrements, street litter, and other organic matter. In addition to negative aesthetic impacts, these substances may harbor bacteria, viruses, vectors, and depress the dissolved oxygen levels in water bodies.

Groundwater Water Quality

Groundwater quality varies throughout the San Geronio Pass area, depending upon naturally occurring conditions, historical and current land use patterns, and groundwater extraction patterns. Naturally occurring soil and geologic conditions in the region often result in elevated levels of dissolved solids in groundwater measured in terms of Total Dissolved Solids (TDS).⁶ Commonly referred to as “hard” water, these dissolved solids include inorganic salts (including calcium, magnesium, potassium, sodium, bicarbonates, chlorides, and sulfates) and a small amount of organic matter. Increases in groundwater TDS concentrations are a function of the recharge of storm and urban runoff, imported water, and incidental recharge. They are also attributed in part to the legacy of salt contamination from past agricultural uses, including fertilizer use and waste disposal. Groundwater in the San Geronio Pass Subbasin is characterized as predominantly calcium-sodium bicarbonate type TDS content for selected samples from municipal wells ranged from 106 to 205 mg/L. There are no listed impairments of water quality, however the presence of nitrates in certain well locations within the Beaumont Management Zone are of potential concern.

⁶ Total dissolved solids, abbreviated TDS, is an expression for the combined content of all inorganic and organic substances contained in a liquid that are present in molecular, ionized or micro-granular (colloidal) suspended form.

Nitrates are regulated by the US EPA through Primary Drinking Water Standards and by the State Department of Water Resources through Basin Plan standards adopted by its regional boards. Nitrates in the Pass area are believed to emanate primarily from fertilizers, animal feces, and septic systems. Studies conducted by Wildermuth Environmental in 2006 determined that the source of rising nitrate concentrations in some wells owned by the Beaumont Cherry Valley Water District was septic tank leakage (also known as on-site waste disposal systems (OSWDS), primarily located in the unincorporated Cherry Valley area of Riverside County. The Wildermuth study concluded based on its modeling, that nitrate-contaminated groundwater could eventually impact all BCVWD and Banning production wells and that left unmitigated, OSWDS discharges are sufficient to cause nitrate concentrations to exceed basin plan objectives. The City of Beaumont is working with the County of Riverside to address these issues.

There are no other known water quality problems in local groundwater. At present, nitrate concentrations from sampled wells in the Cherry Valley area generally range from less than 1.0 to 11.3 mg/L. Fluoride concentrations range from less than 0.5 mg/L to 3.0 mg/L. As noted, TDS content for selected samples from municipal wells ranges from 106 to 205 mg/L (California Department of Water Resources, 2003)⁷. None of the groundwater sources that could potentially supply the Project site exceed "Sources of Drinking Water" policy standards. Table 4.9-3, *Inventory of Groundwater Quality at Selected Wells* depicts groundwater quality characteristics for two wells within the Beaumont and Banning Basins each.

Table 4.9-3
Inventory of Groundwater Quality at Selected Wells

Basin	Well ID	Date	pH	Nitrate as mg/L	Sodium as mg/L	Chloride as mg/L	Sulfate as mg/L	Alkalinity
Beaumont	2S/1W28A1	7/14/2003	7.5	7.54	17.4	13.7	18.3	157
Beaumont	3S/1W03K2	6/23/2004	7.9	1.3	26.8	9.74	7.8	136
Banning	3S/1E17C1	7/27/2005	8.5	1.49	47.7	13.9	8.7	121
Banning	3S/1E18D1	8/29/2006	8.4	2.25	52.7	15.9	2.3	138

Source: San Geronio Pass Water Agency Service Area – Inventory of Groundwater Quality at Selected Wells (USGS)

⁷ California Department of Water Resources. 2003. *California's Groundwater. Bulletin 118 data as cited in Liberty XXIII Renewable Energy Power Plant Project EIR D.8 Hydrology and Water Quality.*

Project Site Hydrology

The Project site is located in the upper northwest region of the Whitewater River Watershed, a subunit of the Salton Sea Watershed. Historically, the Butterfield site has received surface drainage flows from two separate watersheds: Smith Creek and Pershing Channel. In its existing condition most of the Project site drains to Smith Creek, an ephemeral drainage, described below, which traverses the site from north to south through the center of the Specific Plan area.

Approximately 323 acres in the southeastern quadrant of the Specific Plan area drain to Pershing Channel, which is located on the west side of Highland Home Road north of Wilson Street. This channel's flows are conveyed under Wilson Street via an existing culvert into an existing channel south of the street.

- **Smith Creek Watershed**

Smith Creek is the Project site's primary natural drainage course and in its existing condition flows from north to south within the central portion of the Project site. Within the Project boundary, Smith Creek is characterized as a natural stream channel approximately 30 feet wide and ranges from three to five feet in depth. Typically dry for most of the year, it can carry a large, high velocity flow of water during heavy rain events. The channel itself is only sparsely vegetated, exhibiting a well-scoured sandy bottom and soil sidewalls with sparse riparian vegetation along the banks. The total Smith Creek watershed is approximately 3,348 acres in size, which includes areas to the north and east of the proposed Project site. At the southern boundary of the Project site, Smith Creek is routed under Wilson Ave through an existing concrete culvert and continues south-southeast until it reaches the San Geronio River. The existing peak flow rate as measured at Wilson Street is 3,518 cubic feet per second (cfs) in a 6-hour interval.⁸ Approximately 1,220 acres or an estimated 79 percent of the Project site lies within the Smith Creek watershed.

- **Pershing Channel Watershed**

The Pershing Channel watershed is approximately 664 acres in size and is located to the east of Smith Creek and includes both east and west of Highland Home Road. The channel exists as an unimproved natural stream with the exception of 1,500 linear feet (lf) between the Edison easement that traverses the central portion of the Project site and Wilson Street, which is concrete lined. At Wilson Street, the Pershing Channel flows are conveyed through an existing culvert and the channel continues southeast to the San Geronio River, which conveys flows to the Whitewater River and thence to the Salton Sea. The peak (100 year storm event) flow as measured at Wilson Street is 946 cfs (6 hr.

⁸ RBF Consulting, 2006. *Banning/Deutch Property Backbone Drainage Study (2nd Submittal)* prepared for Pardee Homes.

duration). Approximately 323 acres or 21 percent of the Project site lies within the Pershing Channel watershed.

Floodplain and Floodplain Management

A floodplain is flat or nearly flat land adjacent to a stream or river that experiences occasional or periodic flooding. It includes the floodway, which consists of the stream channel and adjacent areas that carry flood flows, and the flood fringe, which are areas covered by the flood but which do not experience a strong current. Floodplains generally contain unconsolidated sediments that include accumulations of sand, gravel, loam, silt, and/or clay. The soil characteristics of floodplains make them particularly suitable for groundwater recharge while the periodic wetting of a floodplain allows them to support particularly rich ecosystems.

Floodplain management is accomplished through the implementation of an overall program of corrective and preventative measures for reducing flood damage and preserving and enhancing natural resources in the floodplain. Such programs may include emergency preparedness plans, flood control works, adoption and implementation of floodplain management regulations, and open space plans. The fundamental floodplain management program in the United States is the National Flood Insurance Program (NFIP). The three components of the NFIP are: (1) flood insurance; (2) floodplain management; and (3) flood hazard mapping.

To accomplish component 3 above, the Federal Emergency Management Agency (FEMA) publishes flood hazard maps, called Flood Insurance Rate Maps (FIRMs). The purpose of the FIRM is to show the areas in a community that are subject to flooding and the risk associated with these flood hazards. One of the areas shown on the FIRM is a Special Flood Hazard Area (SFHA). The SFHA is the area that has a 1-percent or greater chance of flooding in any given year; this area is also referred to as the base floodplain or the 100-year flood plain.

The City's Comprehensive General Plan EIR notes that Banning is located in several large drainage basins (watersheds) and floodplains on the valley floor are susceptible to flood hazards, which can be divided into three categories:

1. Flash flooding down natural channels;
2. Ponding due to man-made or naturally occurring obstructions to flow; and
3. Sheet flooding on alluvial fans where most development in the City occurs

Exhibit 111-16 of the Comprehensive General Plan EIR (*Flood Zones in the Study Area*) indicates that the Project site is prone to at least two of these conditions. The site is susceptible to flash flooding along Smith Creek as well as flooding due to sheet flow. Flood Insurance Rate Maps (FIRM) for the Banning area identify both areas of 100-year flood, where base flood elevations and flood hazard factors have not been determined, and areas of 100-year flood where base flood elevations and flood hazard have been determined. The latter designation applies to the

Smith Creek area, particularly in the southern portion of the Project site. The USGS has designated most of the balance of the site as a flood-prone area due to sheet flow. The southern quadrants of the Project site area located within the FIRM-defined 100-year floodplain of Smith Creek. Most of this floodplain is designated Zone A7, meaning that base flood elevations have been determined. The floodplain area is subject to inundation with a probability of occurrence of 1 percent in any given year; however, portions of this area, being in or near the Smith Creek channel, could be inundated much more frequently.

Both the Comprehensive General Plan and the Banning Master Drainage Plan (RCFCD) note that channel modifications and construction of a debris basin are proposed for the undeveloped portion of the Smith Creek alluvial fan area north of Wilson Street. These are included as part of the drainage improvements that will be completed as part of the Butterfield Specific Plan Project, as described under the heading *Master Drainage System*, below.

A Letter of Map Revision (LOMR) is FEMA's modification to an effective FIRM or Flood Boundary and Floodway Map (FBFM) or both. LOMRs are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). The LOMR officially revises the FIRM or FBFM, and sometimes the Flood Insurance Study (FIS) report⁹. A LOMR represents a change in the configuration of the floodplain due to extensive physical changes such as stream channelization or channel modification, or major fill placement that raises the elevation of building pads above the BFE.¹⁰

4.9.2.2 REGULATORY FRAMEWORK

Clean Water Act (CWA)

The CWA was enacted with the primary purpose of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. The CWA also directs states to establish water quality standards for all 'waters of the United States' and to review and update such standards on a triennial basis. Other provisions of the CWA related to basin planning include Section 208, which authorizes the preparation of waste treatment management plans, and Section 319, which mandates specific actions for the control of pollution from non-point sources. The United States Environmental Protection Agency (U.S. EPA) has delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs such as the National Pollutant Discharge Elimination System

⁹ Riverside County Flood Control District, *Frequently Asked Questions – Flood Zone*, <http://www.floodcontrol.co.riverside.ca.us/content/RegFZFAQ.htm#5>, accessed 7/29/2010.

¹⁰ FEMA, *Letter of Map Amendment (LOMA) and Letter of Map Revision Based on Fill (LOMR-F) Process*, http://www.fema.gov/plan/prevent/fhm/fmc_loma, accessed 7/28/2010.

(NPDES) Program to the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs).

Section 303(c)(2)(b) of the CWA requires states to adopt water quality standards for all surface waters of the United States. Section 304(a) requires the U.S. EPA to publish water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Water quality standards are typically numeric, although narrative criteria based upon bio-monitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards.

- **Section 303(D) and Total Maximum Daily Loads (TMDLs)**

The CWA contains two strategies for managing water quality. One is a technology-based approach that includes requirements to maintain a minimum level of pollutant management using the best available technology. The other is a water quality-based approach that relies on evaluating the condition of surface waters and setting limitations on the amount of pollution that the water resource can be exposed to without adversely affecting the beneficial uses of those waters. Section 303(d) of the CWA bridges these two strategies. Section 303(d) requires that States make a list of waters that are not attaining standards after the technology-based limits are put into place. For waters on this list, the States are required to develop total maximum daily loads or TMDLs. TMDLs are established at the level necessary to implement the applicable water quality standards from both point and non-point sources. Section 303(d), 303(e), and their implementing regulations require that approved TMDLs be incorporated into water quality control plans. The U.S. EPA has also established regulations at 40 CFR 12 requiring that NPDES permits be revised to be consistent with any approved TMDL. A federal regulation, effective October 2001, requires that implementation plans be developed along with the TMDLs.

- **National Pollutant Discharge Elimination System (NPDES)**

The NPDES permit system was established in the CWA to regulate both point and non-point source discharges. Point sources are generally a municipal or industrial discharge at a specific location or pipe. Non-point sources are diffuse discharges that originate over a wide area rather than from a definable point. Non-point pollution often enters the receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Urban stormwater runoff and construction site runoff are diffuse sources regulated under the NPDES permit program because they are conveyed in discrete conveyances and discharge to receiving waters at discrete locations. Each non-stormwater runoff NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that the U.S. EPA must consider in setting

effluent limits for priority pollutants. In California, the authority to implement the NPDES program was delegated to the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCB).

Flood Insurance Rate Maps (FIRM)

FEMA is responsible for determining flood elevations and floodplain boundaries based on studies performed by the U.S. Army Corps of Engineers (USACE). FEMA is also responsible for distributing the Flood Insurance Rate Maps (FIRMs), which are used in the NFIP. These maps identify the locations of special flood hazard areas, including the 100-year flood plain. The Project site contains areas mapped by FEMA as a SFHA and flood hazard regulations apply to the proposed Project.

State of California Water Quality Control Plans (WQCP)

Responsibility for the protection of water quality in California rests with the SWRCB and the nine RWQCBs. The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and State water quality statutes and regulations. The RWQCBs develop and implement Water Quality Control Plans (WQCP) that considers regional beneficial uses, water quality characteristics, and water quality problems. In cases where a WQCP does not contain a standard for a particular pollutant, other criteria are used to establish a standard. Other criteria may be applied from the SWRCB documents (e.g., the Inland Surface Waters Plan and the Pollutant Policy Document, or the California Toxics Rule) or from EPA water quality criteria developed under Section 304(a).

All projects resulting in discharges, whether to land or water, are subject to Section 13263 of the *California Water Code* and are required to obtain approval of Waste Discharge Requirements (WDRs) by the RWQCB. Land and groundwater-related WDRs (i.e., non-NPDES WDRs) regulate discharges of privately or publicly treated domestic wastewater and processed and wash-down wastewater.

Porter-Cologne Water Quality Control Act

The *Porter-Cologne Water Quality Control Act* (PCWQCA) establishes the SWRCB and each RWQCB as the principal State agencies for coordinating and controlling water quality in California. Specifically, the Act authorized the SWRCB to adopt, review, and revise policies for all waters of the State (including both surface and groundwater) and directs the RWQCBs to develop regional Basin Plans. Section 13170 of the *California Water Code* also authorizes the SWRCB to adopt water quality control plans on its own initiative.

In the Banning area both the Santa Ana Regional Water Quality Control Board (SARWQCB) and the Colorado River Basin Regional Water Quality Control Board (CRBRWQC) have the

authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction. Water quality objectives for the Whitewater River watershed and its tributaries are specified in the Water Quality Control Plan (WQMP) for the Colorado River Basin adopted in June 2006 by the CRBRWQCB. The Plan divides the Basin area into 6 hydrologic planning areas, among them the Coachella Valley Basin PA in which the Whitewater River Watershed and the San Gorgonio Pass Groundwater Subbasin are located. The principal elements of the Basin Plan are the statement of beneficial water uses protected under the Plan, water quality objectives necessary to protect the designated beneficial water uses, and the strategies for achieving the water quality objectives. Because the Project site is located within the CRBRWQCB jurisdiction, all discharges to surface waters are subject to the Colorado River Basin Plan.

The project site overlays the Beaumont groundwater basin, and sits immediately east of the boundary between the SARWQCB and CRBRWQCB jurisdictions. The Beaumont groundwater basin is split geographically between the jurisdictions; however, the primary sources of surface water used to recharge to the basin are located within the Upper Santa Ana River Watershed, under the jurisdiction of the SARWQCB, as is the majority of the basin itself. Accordingly, groundwater standards for the Beaumont basin are set by the SARWQCB.

- **Waste Discharge Requirements**

The *Porter-Cologne Water Quality Control Act* provides that, “All discharges of waste into the waters of the State are privileges, not rights.” Furthermore, all dischargers are subject to regulation under the Act, including both point and non-point source dischargers. The SWRCB and RWQCBs has administrative permitting authority in the form of administrative tools (waste discharge requirements (WDRs), waivers of WDRs, and basin plan prohibitions) to address ongoing and proposed waste discharges. WDRs may include effluent limitations or other requirements that are designed to implement applicable water quality control plans, including designated beneficial uses and to prevent the creation of nuisance conditions. For discharges into surface waters, a NPDES permit application must be filed with the appropriate RWQCB. Violations of WDRs may be addressed by issuing Cleanup and Abatement Orders (CAOs), Cease and Desist Orders (CDOs), assessing administrative civil liability, or seeking imposition of judicial civil liability or judicial injunctive relief.

- **Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP)**

In March 2000, the SWRCB adopted the SIP, which establishes: (1) implementation provisions for priority pollutant criteria promulgated by the TPA through the National Toxics Rule (40 CFR 131.36) and through the California Toxics Rule (40 CFR 131.38), and for priority pollutant objectives established by the RWQCBs in their water quality plans; (2) monitoring requirements for 2, 3, 7, 8-TCDD (dioxin) equivalents; and (3) chronic toxicity control provisions. In addition, this policy includes special provisions for

certain types of discharges and factors that could affect the application of other provisions of this policy. A list of priority pollutants and associated criteria can be found in the CFR, Section 40, Part 131.

- **California Toxics Rule**

Other applicable water quality criteria include the California Toxics Rule (CTR), which establishes numeric criteria for aquatic life and human health protection for about 130 priority trace metal and organic constituents. Numeric water quality objectives include specific concentration-based values that may be imposed on the effluent or at the edge of an allowable mixing zone within the receiving water.

- **Inland Surface Water Quality Standards**

The SWRCB has developed water quality objectives for inland surface waters through the 1991 Inland Surface Waters Plan (ISWP). Included among the provisions of these objectives is the requirement that effluent limits are to be imposed, either through NPDES permits or WDRs, to ensure that water quality objectives are not exceeded in the receiving waters outside a designated mixing zone. The more stringent objectives are applied to discharges that contain priority pollutants.

National Pollutant Discharge Elimination System – State of California Implementation

- **Construction General Permit**

The SWRCB permits all regulated construction activities under Order No. 98-08-DWQ (1999). This Order requires that, prior to beginning any construction activities, the permit applicant must obtain coverage under the General Construction Permit by preparing and submitting a Notice of Intent (NOI) and paying an appropriate fee to the SWRCB. Additionally, coverage under the general permit is not effective until an adequate Stormwater Pollution Prevention Plan (SWPPP) has been prepared. A separate NOI is submitted to the SWRCB for each construction site.

Construction activities subject to the NPDES Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, which result in soil disturbances of a least 1 acre of total land area. 2003 revisions to the original Construction General Permit clarify that all construction activities, including small construction sites of less than 1 acre but part of a larger common plan of development of at least one acre, must obtain coverage under the Permit. Because construction of the Project would cumulatively disturb more than 1 acre, all of its improvement and development activities would be subject to these requirements.

- **Storm Water Pollution Prevention Plan (SWPPP)**

The SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges; and (2) to describe and ensure the implementation of Best Management Practices (BMPs) to reduce or eliminate sediment and other pollutants in stormwater and non-stormwater discharges.

BMPs are intended to reduce impacts to the Maximum Extent Practicable (MEP), a standard created by Congress to allow regulators the flexibility necessary to tailor programs to the site-specific nature of municipal stormwater discharges. Regulations do not define a single MEP standard, but reducing impacts to the MEP generally relies on BMPs that emphasize pollution prevention and source control, with additional structural controls as needed.

In 2009, the SWRCB adopted an updated General Construction Permit that became effective on July 1, 2010.

Basin Plan

Both the Santa Ana RWQCB and the Colorado River RWQCB implement a number of federal and State laws, the most important of which are the *Porter-Cologne Water Quality Act* and the federal *Clean Water Act*. Both the Water Quality Control Plan Santa Ana River Basin (8) (1995, and as amended in 2004 and updated in 2008) and the Colorado River Basin Water Quality Control Plan (adopted June 2006) were prepared in compliance with the federal CWA and the State PCWQA. The Basin Plans establish water quality objectives and implementation programs to meet stated objectives and to protect the beneficial uses of water in the Santa Ana River and Colorado River Basins. Beneficial uses and water quality objectives, together, comprise the relevant water quality standards. These Basin Plans cover the various surface watersheds and groundwater basins within their respective jurisdictions. Because of its unique geographic location, the Project site may be, in various instances and depending upon the water resource involved, subject to the standards contained in one or both of the cited Basin Plans.

County of Riverside and County of Riverside Flood Control District NPDES Permit MS4 Permit (Municipal Stormwater Permit)

The Riverside County Flood Control and Water Conservation District (District or RCFCD) service area encompasses portions of three major watersheds (drainage areas): the Santa Ana, the Santa Margarita, and the Whitewater. The discharge of stormwater from municipal storm drainage systems within each of these three watersheds is regulated pursuant to a NPDES MS4 Permit¹¹ (NPDES Permit) administered by a separate RWQCB. In the case of the Whitewater Watershed, in which the Project site is located, the District, in conjunction with the County of

¹¹ The term MS4 is an acronym for Municipal Separate Storm Sewer System.

Riverside (County), Coachella Valley Water District (CVWD), and the cities of Banning, Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs and Rancho Mirage (Cities), operates pursuant to the NPDES Permit for the Whitewater Watershed initially adopted on May 22, 1996.

The initial Permit expired on May 22, 2001 and as required by the Permit renewal procedures, the Permittees' submitted a Report of Waste Discharge (ROWD) to the Regional Board that led to the subsequent adoption of Permit No. 01-077 on September 5, 2001. Permit No. 01-077 incorporates the Permittees' proposed Stormwater Management Plan (SWMP), which was developed during the initial Permit term, along with additional management programs that were subsequently developed. On May 21, 2008, the Regional Board adopted the region's third term permit, Order Number R7-2008-0001 (2008 Permit). This new permit seeks to improve programs established in the previous term. It expires on May 21, 2013.

The County of Riverside and the Riverside County Flood Control and Water Conservation District are the Principal Permittees. The Cities, including Banning, are identified as Co-Permittees. The City of Banning, although included as a Permittee on the referenced MS4 Permit, does not share an interconnected MS4 with the remainder of the Permittees. The MS4 operated by the City of Banning discharges directly into the San Gorgonio River, a receiving water. Most MS4 discharges from the City of Banning infiltrate to groundwater basins. However, the City of Banning is included in the MS4 Permit to facilitate coordination with the regional programs implemented by the Permittees and to reduce the administrative duties of the Regional Board. A draft General Construction Permit has been issued as part of the renewal of the MS4 Permit. As currently written, the General Construction Permit is exponentially more stringent than the 2001 Permit.

- **Storm Water Management Program**

The 2008 Permit requires the Permittees to update the elements outlined in that permit. This requires revision or expansion of the Permittee's Stormwater Management Program (SWMP). This effort is still underway. A Draft SWMP was published and circulated for public comment on April 15, 2009. When approved by the Regional Board, the Whitewater River Region SWMP will describe programs for compliance with the Board's Order No. R7-2008-0001. This revised 2009 Whitewater River Region SWMP updates the 2006 SWMP prepared by the Permittees and describes the stormwater and urban runoff management program that will be implemented during the term of Order No. R7-2008-0001. The revisions will reflect programmatic improvements based on the Permittee's experience in implementing the 2001 SWMP, findings of the monitoring program, and implementation of statewide water quality policies. A key element of this revision is the development of a Water Quality Management Plan (WQMP) for the Whitewater River Region. The WQMP describes requirements for treatment of urban runoff and management of peak flow and volume for specified categories of new development and redevelopment.

- **Water Quality Management Plan (WQMP)**

WQMP is the acronym for Water Quality Management Plan. A project-specific WQMP is a plan for managing the quality of stormwater or urban runoff that flows from a developed site after construction is completed and the facilities or structures are occupied and/or operational. A project-specific WQMP describes the site design, source control and treatment control Best Management Practices (BMPs) that will be implemented and maintained throughout the life of a project and is used by property owners, facility operators, tenants, facility employees, maintenance contractors, etc. to prevent and minimize water pollution that can be caused by stormwater or urban runoff.

Prior to 2009 potential post-construction impacts associated with urban runoff located in the Whitewater River Watershed were addressed through Supplement A of the Whitewater River Watershed Stormwater Management Plan (SWMP). However, in 2009 the RWQCB adopted a WQMP for the Watershed that replaced pursuant to the requirements of Section F.1.c.iv of the 2009 MS4 Permit (Colorado River Basin Regional Water Quality Control Board Order No. R7-2008.0001), which requires the preparation, approval and implementation of a project-specific WQMP for all discretionary new development projects submitted after June 15, 2009, that fall into one of the Priority Development Project categories. The proposed Project is a Priority Project pursuant to the Order as it includes single-family hillside residences that will create 10,000 square feet or more of impervious area where the natural slope is 10 percent or greater where erosive soil conditions are known, will involve the development of home subdivisions with more than 10 housing units, and will include parking lots of 5,000 square feet or more with 25 or more parking spaces that will be potentially exposed to urban runoff.

City of Banning Comprehensive General Plan and General Plan EIR (2006)

The City of Banning General Plan EIR includes analysis of impacts associated with the implementation of the proposed General Plan as well as the revised Banning Zoning Code. Since the proposed Project is an amendment and restatement of an approved Specific Plan that was in place prior to the adoption of the 2006 General Plan Update, its impacts were assumed in the General Plan analysis of hydrologic impacts including flood zone development requirements. The General Plan EIR includes mitigation measures that are expected to be implemented both on a City-wide basis and in the course of hydrologic analysis and review on a project-by-project basis. These mitigation measures require the following:

- **City of Banning General Plan Mitigation Measures**

- GP-HYD-1-1: Require all new development to complete on site drainage improvements, at their expense, as part of project development (Hydrology Mitigation Measure F).
- GP-HYD1-2: Major drainage facilities, including debris basins and flood control channels, shall be designed to maximize their use as multi-purpose recreational facilities that maintain the functional requirements of the drainage facilities (Hydrology Mitigation Measure G).
- GP-HYD1-3: The City shall cooperate in securing FEMA map amendments, recognizing the importance of redesignation of the 100-year flood plains within the City boundaries and SOI improvements are completed (Hydrology Mitigation Measure K).
- GP-HYD1-4: In conjunction with the RCFC, the City shall coordinate and cooperate in the filing of appropriate FEMA application materials to incrementally secure amendment to the Flood Insurance Rate Maps for the City, consistent with existing and proposed improvements (Hydrology Mitigation Measure L).
- GP-HYD1-5: All new development shall be required to incorporate adequate flood mitigation, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and the adequate siting of structures located within flood plains. (Hydrology Mitigation Measure P).
- GP-HYD1-6: Storm water retention shall be enforced through the development review process and routine site inspection (Hydrology Mitigation Measure Q).
- GP-HYD1-7: The City shall establish and enforce regulations and guidelines for the development and maintenance of project-specific on-site retention/detention basins, which implement the NPDES program, enhance groundwater recharge, complement regional flood control facilities, and address applicable community design policies (Water Resources/ Quality Mitigation Measure I).
- GP-HYD1-8: The City shall evaluate all proposed land use and development plans for their potential to create groundwater contamination hazards from point and non-point sources, and shall confer with other appropriate agencies, as necessary, to assure adequate review (Water Resources/ Quality Mitigation Measure J).

City of Banning Municipal Code

On January 12, 2010, the City of Banning adopted Ordinance No. 1415, amending Title 13, Chapter 13.24, of the Municipal Code (now entitled “Stormwater Code”) to bring it into compliance with the requirements of its Municipal NPDES Permit No. CAS617002 (R7-2008-0001). Among other things, the amended Stormwater Code addresses water quality on construction sites (Section 13.24.110 (*Construction Sites*), which was amended in its entirety, and new development (Section 13.24.120 (*New Development and Redevelopment*), which was also amended in its entirety. Section 13.24.110 requires land development activities to include provisions for the management of stormwater runoff from the property, which is to include volumetric or flow based treatment control BMP design criteria, which shall consist of constructing storage and/or infiltration facilities including basins, and make provision to store runoff from rainfall events up to and including the 100-year, 3-hour duration event. Post-development peak urban runoff discharge rates may not exceed pre-development peak urban runoff discharge rates. Section 13.24.120 requires new development to control stormwater runoff so as to prevent any deterioration of water quality that would impair subsequent or competing uses of water and further requires new development to implement BMPs designed to control the rate and volume of stormwater runoff from new developments so as to minimize the discharge and transport of pollutants.

Chapter 15.64 of the Banning Municipal Code is the City’s Floodplain Management Ordinance. Chapter 15.64 authorizes the City to restrict or prohibit uses that could be dangerous to health safety, and property due to water or erosion hazards, to control the alternation of natural floodplains, stream channels, and natural protective barriers, to control filling, grading, dredging and other development that may increase flood damage, prevent or regulate the construction of flood barriers which could divert flood waters or increase flood hazards in other areas, and to require measures to protect uses against flood damage at the time of construction.¹²

In addition to the City of Banning, the Riverside County Flood Control and Water Conservation District (RCFCD) is responsible for the management of regional drainage within and in the vicinity of Banning, including rivers, major streams and their tributaries, and areas of significant sheet flow. The District handles flood control planning, construction of drainage improvements for regional flood control facilities, and watershed and watercourse protection. The City, however, remains directly responsible for the management of local drainage. Both agencies coordinate in the planning and approval of mitigation measures.¹³

¹² City of Banning Municipal Code, Chapter 15.64.020 – Methods of reducing flood losses. The provisions of Chapter 15.64 apply to all areas of “special flood hazards” within the jurisdiction of the City as defined in Section 15.64.040(B) of the Code, which includes the Project site.

¹³ City of Banning Comprehensive General Plan Draft EIR, *Section III(D) Hydrology*, pp III-86, 2005.

Municipal Code Chapter 18 (*Erosion and Sediment Control*) contains the City's requirements and standards for construction and post-construction phase BMPs for sediment control that impact water quality.

4.9.3 SIGNIFICANCE THRESHOLD CRITERIA

THRESHOLDS OF SIGNIFICANCE

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the Project's Initial Study. This form includes questions relating to hydrology, drainage, and water quality. The issues presented in the Initial Study Checklist have been utilized as thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it would:

- a) Violate of any water quality standards or waste discharge requirements;
- b) Substantially deplete of groundwater supplies or substantially interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for that permits have been granted); (*Refer to Section 4.14, Water Supply*)
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on-or off-site;
- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;
- e) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- f) Otherwise substantially degrade water quality;
- g) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows; and
- i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam and/or inundation by seiche, tsunami, or mudflow.

Federal, State and local drainage laws and regulations govern the evaluation of impacts on surface water drainage. For this evaluation, impacts on surface water drainage would be considered significant if the Project would violate a water quality standard or waste discharge requirement, substantially deplete groundwater supplies, alter the drainage patterns of the site, which could result in substantial erosion, siltation, or increased runoff that could increase flooding, contribute runoff water that would exceed the capacity of existing or planned storm drain systems, degrade water quality, place housing in a 100-year floodplain, or expose people or structure to an increased risk of flooding as a result of the failure of a dam or levee.

4.9.4 IMPACT ANALYSIS AND MITIGATION MEASURES

ANALYTIC METHOD

The qualitative analysis in this section focuses on potential Project impacts to regional and on-site hydrology and water quality, including an analysis of impacts on both surface waters and groundwaters. In addition, this section analyses the potential hazards associated with floods and floodplain management as they relate to the Project site and its regional setting. The information in this section is based upon reviews of previously prepared reports documenting environmental investigations at the Project site, as well as other similar environmental documentation prepared for similar projects. In determining the level of significance, the analysis assumes that the construction and operation of the proposed Project would comply with all applicable federal, State, and local laws and regulations. The EIR analysis is based on review of available documents, including the proposed Specific Plan and associated tract maps, as well as Project-specific technical studies contained in Appendix G, *Hydrology Studies*.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Section 3.4.3 of the Specific Plan includes Development Standards for the design and implementation of on-site drainage facilities. These include:

- 1) The Project shall conform to all of the requirements imposed by the Riverside County Flood Control and Water Conservation District Hydrology Manual, the requirements of the City of Banning's adopted Storm Water Ordinance (Title 13 of the Municipal Code), the requirements of the Whitewater River Watershed Stormwater Management Plan, and the NPDES General Construction Permit.
- 2) The Project has incorporated a comprehensive drainage, water quality, groundwater recharge and biological resource mitigation program into the site, consisting of the surface drainage system, water quality basins, North Basin, realigned Smith Creek, recharge basins, and Smith Creek culvert improvements. This will reduce stormwater runoff volume and velocity, improve stormwater runoff water quality during storm events and low-flow irrigation volumes, improve groundwater

recharge, and create biological resource habitat. Key system features are summarized in Section 3.4 of the Draft Butterfield Specific Plan, and draft TTMs on file at the City, and are briefly summarized below.

Butterfield Specific Plan Master Drainage System¹⁴

The Butterfield Specific Plan proposes a backbone system of drainage improvements which will utilize the capacity of both Smith Creek and Pershing Channel to contain and transport surface flows from and through the Project site in its developed condition. The backbone system will also direct first-flows or nuisance flows toward water quality features that will treat the runoff before it enters these drainage courses. It is anticipated that grading for the proposed Project will elevate the building pads so that they are no longer impacted by flooding due to sheet flow and that such flows originating off-site will be captured and directed safely through the project site as part of the overall Project drainage. In addition, following its realignment, the 100-year flood plain of Smith Creek will be contained entirely within the open space/golf course. Pad elevations at the edge of the golf course will be set above the floodplain elevation to further protect structures. Basin and channel features, integrated with the realigned Smith Creek, will help regulate the volume and velocity of flows so as to protect the Project site from inundation. The primary features of the proposed Master Drainage System are identified and described below and are illustrated in Exhibit 3.0-7, *Master Drainage Plan*, in Section 3.0, *Project Description*, of this EIR.

- **North Basin**

As indicated above, Smith Creek will be realigned as it traverses the Project site so that it flows through the Project's golf course. A large detention basin (North Basin) would be constructed within Planning Area 71 where Smith Creek enters the Project site. The basin will be designed to detain upstream flows to reduce the peak volume of flows that will be conveyed through the Wilson Street culvert. The North Basin would include a desilting basin for upstream flows, a weir to capture accumulated debris, and a detention basin to receive overflow from the desilting basin. The basin may also be used to store recycled water. Water held in the North Basin is expected to be used to recharge the underlying Beaumont Groundwater Basin.

- **Golf Course Drainage System**

The backbone of the on-site drainage system is the realigned Smith Creek channel that will traverses the golf course. During significant storm events overflow from the channel will be contained within the golf course fairways, extending the wetted perimeter of the channel and reducing storm flow velocity. Drop structures designed into the realigned Smith Creek channel will be utilized to further reduce storm flow

¹⁴ Butterfield Specific Plan, Section 3.4.2, *Master Drainage System*, p 3-32.

velocity and protect the channel from erosion. Culverts will convey channel flows under the Project's streets as needed.

- **Water Quality Treatment**

Low flow drainage (i.e., nuisance flows) and storm flows will be directed into water quality treatment facilities consisting of vegetated detention basins or vegetated flow-through swales, which will be located in the golf course areas, other open space areas, and residential areas. Additional Best Management Practices¹⁵ (BMPs) will be implemented if required to improve the quality of stormwater runoff; refer to Exhibit 3.0-9, *Proposed Water Quality Infiltration Areas Map*, in Section 3.0 of this EIR.

Butterfield Groundwater Recharge Program

The Butterfield project includes a proposed on-site groundwater recharge system intended to provide a partial offset of the Project's additional demand for domestic potable water and to replenish groundwater supplies utilizing a combination of State Water Project (SWP) allocated to the City of Banning by the San Geronio Pass Water Agency, if and when available, as well as potentially surplus recycled water generated by the Project's proposed satellite wastewater treatment (if constructed) when a surplus is available and it can be acceptably blended with other available water sources. Use of recycled water for groundwater recharge in the Butterfield Specific Plan area would require the approval of and permits from the RWQCB, Santa Ana Region, because the Project site overlies the Beaumont Basin Management Zone. In addition, use of recycled water would be required to comply with California Department of Public Health Title 22 regulations. Bringing the supply of SWP water to the recharge system would be facilitated by a proposed pipeline extension from the existing San Geronio Pass Water Agency spreading grounds to the Project's Planning Area 71, where it would be stored in the proposed 15-acre North Basin, and it could be released into Smith Creek and spread to groundwater recharge areas located either adjacent to the North Basin or within the golf course open space. The reservoir within this basin will have a capacity of 290 acre-feet (AF), of which 145 AF will be dedicated to flood control/ stormwater control and 145 AF will be dedicated to the storage of recycled water and/or imported water supplies, if they become available¹⁶. Based on this design, the basin will be required to maintain at least 145 AF of storage capacity during the rainy season to ensure adequate flood protection to downstream properties.

¹⁵ Volume-based BMP design applies to BMPs where the primary mode of pollutant removal depends upon the volumetric capacity, such as detention, retention, and infiltration basins. Flow-based BMP design applies to BMPs where the primary mode of pollutant removal depends upon the rate of flow thru the BMP, such as swales, sand filters, screening devices, and proprietary devices such as storm drain inserts. Source: California State Water Resources Control Board

¹⁶ City of Banning, March 29, 2011. *Water Supply Assessment for Butterfield Specific Plan*, pp 21.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.9-1: Water Quality

Threshold: *Would the Project result in violation of water quality standards or waste discharge requirements?*

Determination: *Less than Significant*

Impacts to surface water quality have the potential to occur during the Project's construction phases; in the interim condition when portions of the site are left fallow with temporary vegetative cover; and following construction of individual tracts through buildout of the community, when impacts related to siltation, sedimentation, and erosion (the transport of particulate matter into streams and rivers that change downstream hydrologic conditions and affect water flow and quality) are likely to decrease while impacts associated with urban runoff such as nutrients, oil and grease, organic compounds, pesticides, and gross pollutants that could change the chemical composition of downstream water bodies, which may affect plant and wildlife will become more prominent.

Impacts have potential to occur both on- and off-site during the course of construction, but would be limited to on-site impacts following the construction of off-site facilities. With the exception of Phase IA, when 60 percent of the site would be mass graded and construction started on off-site infrastructure, the Project will generate a mix of impacts occurring within the same timeframes: some related to urban runoff in developed areas, some related to project construction, and others related to erosion, siltation, and sedimentation in areas that are not yet developed with urban uses.

Impacts to groundwater quality have the potential to occur throughout the life of the project. The Project site is underlain by the Beaumont basin. The Project site, and in particular that portion of the site occupied by Smith Creek, is currently a recharge area for that basin and is the result of storm water or snow melt flowing through Smith Creek from higher elevations, ponding within the creek channel or in the channel's floodplain, and ponding outside of the immediate creek area due to sheet flow. The recharge function of Smith Creek will be retained and enhanced as the Project develops through the realignment of the creek, the construction of debris, detention, and water quality basins as well as anticipated containment of post-storm ponding within the golf course as the Project develops. The proposed use of recycled water for irrigation of landscape and the golf course will both introduce a new additional source of water to the site and increase the quantity of water available for groundwater recharge through on-site percolation, as would the potential import of SWP water to the proposed North Basin in PA 71. The discharge of recycled water into the Project recharge areas requires the Project Applicant to meet Individual Waste Discharge Requirements and Water Recycling

Requirements and obtain a Master Recycling Permit from RWQCB (see discussion in Section 4.14 Water Supply).

The Beaumont basin is an adjudicated groundwater basin. Pursuant to the Beaumont basin Judgment, the Court appointed a Watermaster which is the Court's special-master for the Beaumont Basin. The Watermaster collects data on water quality from the Appropriators and other cooperating agencies to monitor the Beaumont basin. The Watermaster monitors the water quality and levels of wells and storage throughout the Basin. This data allows the Watermaster to perform scientific and engineering analyses to ensure that the Watermaster's responsibilities which include maintaining and improving the water quality are fulfilled.

The City is allowed to pump up the basin's safe yield as determined by the Watermaster. The safe yield is a water management construct that describes the sustainable supply of a groundwater basin and is defined herein as the amount of water that can be withdrawn from a groundwater basin annual without producing an undesirable result, include degraded water quality. Because the proposed Project would not require the City to pump in excess of this safe yield and pumping would comply with the rules set forth by the Beaumont Basin Judgment, impacts to the Beaumont Basin's water quality are not anticipated.

Construction Phase – On-Site and Off-Site Infrastructure

Grading and excavation associated with construction of the proposed Project could result in violations of water quality standards due to erosion of exposed soils and subsequent deposition of particles and pollutants to drainage areas. In general, sedimentation is the primary source of water quality impacts during construction. Four phases of mass grading are anticipated as the Project develops, the first phase of which would involve the grading of approximately sixty percent of the Project site and the movement of over 4 million cubic yards (cy) of material, while the total mass grading effort is expected to involve the movement of approximately 6.2 million cubic yards of material; refer to Sections 3.0 (*Project Description*) and 4.7 (*Geology*) for a more complete discussion of site grading.

In addition to the proposed mass grading, rough grading for the construction of pads and streets, and fine grading to finish pads and prepare streets for paving would accompany the development of individual subdivisions within the Specific Plan area. Due to the significant amount of grading expected to take place, there could be potentially significant short-term construction impacts associated with water quality due to excessive siltation unless these are mitigated. These impacts could include excessive sediment entering the Smith Creek drainage and downstream environs, increased sediment load and/or turbidity within Smith Creek affect plant and animal life within the stream course, and introduction of new constituents into downstream waters, potentially changing downstream habitats.

Further, the construction phase of the Project would include the use of potentially hazardous and/or toxic chemicals and materials that could enter receiving waters in the event of accidental spill resulting in soil contamination or nuisance/storm flow contamination, improper handling, and improper storage. (Also see Section 4.8, *Hazards and Hazardous Materials* for a more complete description of potential hazards and associated mitigation measures).

Construction controls are separated from typical water quality management programming because the measures are temporary and specific to the type of construction. Construction of the proposed Project may require temporary construction dewatering if high groundwater occurs within areas located in existing drainages. Water quality impacts from short-term construction operations (including construction dewatering) could also consist of the discharge of pollutants such as sediment from grading operations, oil and grease from equipment, trash from worker and construction activities, nutrients from fertilizers, heavy metals, pathogens, and other substances. As noted, in California, it is the responsibility of the State's Water Resources Control Board and its regional boards to administer the State's NPDES Construction Storm Water Program. Coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity, Construction General Permit Order 2009-0009 DWQ, became effective on July 1, 2010¹⁷. This permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which must include erosion and sediment control best management practices (BMPs) that would meet or exceed measures required by the General Construction Permit, as well as BMPs that control hydrocarbons, trash and debris, as well as other potential construction-related pollutants. Erosion control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. Prior to the issuance of grading permits by the City, a SWPPP would be developed as required by, and in compliance with, the General Construction Permit and the City of Banning requirements contained in Title 13 and Title 18 of the City's Municipal Code. In addition, a Notice of Intent (NOI) would be prepared and submitted to the RWQCB providing notification and intent to comply with the General NPDES Permit.

Implementation of construction-phase BMPs would prevent or minimize impacts to water quality and ensure that discharges during the construction phase would not cause or contribute to any exceedances of water quality standards in the receiving waters. BMP selection is ultimately guided by the *California Stormwater Best Management Practice Handbooks for Construction Activity*, *American Society of Civil Engineers Urban Runoff Quality Management*, and the *Water Environment Federation Manual of Practice No. 23 and 87*. BMPs may include, among others: soil binders, earth dikes and drainage swales, silt fence, sediment basin/trap, gravel bag berms, street sweeping and vacuuming, sand bag/straw bale barriers, vehicle and equipment cleaning, stabilized construction entrance, spill prevention and control, solid waste management, hazardous waste management, concrete waste management, catch basin inserts, good housekeeping practices, and sanitary septic water management. Preparation and

¹⁷ http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

approval of a Project-specific SWPPP is a Project requirement to address construction-related water quality impacts.

Implementation and maintenance of construction phase water quality and erosion control BMPs in compliance with existing ordinances and regulations, including the NPDES Construction General Permit and the requirements of Title 13 (*Stormwater*) and Title 18 (*Grading*) of the City's Municipal Code, would ensure that potential Project construction phase impacts to water quality would be less than significant level by ensuring compliance with water quality standards and waste discharge requirements.

Operational Interim Phase - On-Site

Implementation of the Specific Plan ultimately involves the permanent conversion of existing undeveloped lands to urban and open space/recreational uses and would result in an increase in the amount of impervious surfaces, which would increase stormwater runoff generation and flows while also introducing pollutants (sediment, nutrients, oil and grease, organic compounds, pesticides, and gross pollutants) associated with urban uses, particularly from new and existing roadways, that could be carried in runoff and discharged into receiving waters.

While sedimentation is the primary source of water quality impacts during construction, it would not be considered a significant issue during post-construction and operation of the Project because most of the site would be paved or landscaped, which would stabilize soils for the long term. After construction and during the life of the proposed Project, non-point-source pollutants would be the primary contributors to potential water quality degradation. Non-point-source pollutants are washed by rainwater from rooftops, landscaped areas, streets, parking areas and other impervious surfaces into the on-site drainage system. Typical non-point-source pollutants associated with the proposed uses include maintenance and cleaning supplies, landscape materials and products (pesticides, herbicides, and fertilizers), oil, grease, and heavy metals from automobiles, and petroleum hydrocarbons from fuels. In particular, implementation of the proposed project could potentially contribute non-point-source pollutants into Smith Creek from the use of landscape materials and products (i.e., pesticides, herbicides, and fertilizers).

WQMP is the acronym for Water Quality Management Plan. A Project WQMP is a plan for managing the quality of stormwater or urban runoff that flows from a developed site after construction is completed and the facilities or structures are occupied and/or operational, as opposed to a SWPPP, which focuses on construction phase BMPs. A WQMP describes the Best Management Practices (BMPs) that will be implemented and maintained throughout the life of a project and is used by property owners, facility operators, tenants, facility employees, maintenance contractors, etc., to prevent and minimize water pollution that can be caused by stormwater or urban runoff.

Pursuant to the WQMP Guidelines for the Whitewater River Watershed area, the City of Banning and/or the Riverside County Flood Control District would be required to condition the proposed Project, and/or the individual components of the Specific Plan Project (i.e., proposed subdivision maps) to submit for review and approval a project-specific WQMP that incorporates site design BMPs such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or “zero discharge” areas, and conserving natural areas to the extent feasible. In addition, the WQMP is required to: (1) incorporate applicable source control BMPs and provide a detailed description of their implementation; (2) incorporate treatment control BMPs and provide information regarding design considerations; (3) describe the long-term operation and maintenance requirements for BMPs; and (4) describe the mechanism for funding the long-term operation and maintenance of the BMPs.

The Master Drainage Plan and Land Development Plan for the Butterfield Specific Plan Project includes site design BMPs (refer to Exhibit 3.0-8 *Proposed Water Quality/ Infiltration Areas Map*), such as the development of a golf course, parks and related open spaces that maximize permeability, conserve or restore natural areas, and create reduced discharge areas. These site design BMPs would be implemented concurrent with the incremental development of the Specific Plan. In addition, the Project incorporates source and treatment controls such as water quality basins, detention basins and vegetated swales that would further enhance post-construction water quality to the maximum extent practical (i.e., the MEP standard) by allowing particle sedimentation prior to entry into the storm drain facilities and storm water infiltration to reduce pollutant loads. Other potential BMPs could be utilized to reduce impacts resulting from non-point source runoff from the golf course, such as avoiding over-application (e.g., tilling fertilizers into the soil rather than hydraulic application) and limiting runoff (e.g., applying surface dressing in several smaller applications, as opposed to one large application, or prohibiting fertilizers below the mean high water level).

Preparation, review and approval of one or more WQMPs for the proposed Project or increments thereof, and implementation of site-specific and site-appropriate post-construction BMPs, including those incorporated into the Project as part of the Master Drainage Plan, would ensure that post-construction water quality impacts in both the interim and long-term build-out conditions would be less than significant.

Impact 4.9-2: Drainage

Threshold: *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, and increase impervious surfaces, which could substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

Determination: *Less than Significant with Mitigation Incorporated*

The development of the proposed Project would alter existing drainage patterns through the realignment of Smith Creek and grading that would increase the amount of site area that would drain to Smith Creek as compared to existing conditions. In addition, implementation of the Project's Master Drainage Plan, as described in "Existing Conditions" and Land Development Plan, as described in Section 3, *Project Description*, would result in the diversion of sheet flow across the site into gutters, catch basins and detention facilities, that would capture floodwater from Smith Creek and limit the impacts of flooding to the proposed golf course, and would reduce flow velocity and detain upstream and downstream flows. However, the purpose of these alterations is to provide enhanced drainage capacity, eliminate the potential down stream impacts associated with increasing the amount of on-site impervious surface, and reduce flooding hazard both within the site and downstream. Accordingly, these would be considered beneficial impacts.

During the construction phases of the Project, short term alteration of drainage patterns would occur; however, these diversions would be managed pursuant to the Specific Plan's Drainage Plan Guidelines. Temporary detention basins would be constructed to meet detention requirements and earthen channels/berms would be used to divert and convey flows during construction phases. These measures would ensure that temporarily diverted flows associated with construction activity would not result in on-site or off-site downstream flooding.

Accordingly, while the proposed Project drainage improvements, including off-site grading and construction of the debris/desilting basins would alter the existing drainage patterns, implementation of these improvements would ultimately allow for optimal drainage throughout the site and would offer improved stormwater flow downstream of the Project area. To ensure that compliance with the Specific Plan's Drainage Plan Guidelines, Mitigation Measure HWQ-1 identifies specific requirements associated with subsequent Tentative Tract maps, site plans, grading plans, and improvement plans prior to issuance of applicable permits. Adherence to these requirements will result in a less than significant impact.

Mitigation Measures

The following mitigation measure will ensure that impacts associated with the project are less than significant. Potential adverse Project effects are also "mitigated" through the various existing regulations and ordinances noted above. In addition, the Project has reduced, avoided or offset potentially adverse impacts through Project Design Features noted above (all of which are summarized in Section 3.7, *Project Design Features*):

HWQ-1: The following measures shall be reflected in applicable Tentative Tract Maps (TTMs), site plans, grading plans, and/or improvement plans to the satisfaction of the City Engineer, prior to applicable plan/permit approval:

- 1) All building pads within the Specific Plan shall be constructed so that they are free from flood hazard for the 100-year frequency storm by elevating finished floor elevations above the 100-year level of flood protection.
- 2) The depths of flow in the Project's streets shall not exceed top of curb elevations for the 10-year frequency storm event.
- 3) Streets shall be oriented to allow for maximum potential conveyance of regional flooding during significant storm events to expedite the passage of storm flows through the Specific Plan area.
- 4) The Specific Plan will be phased so that 100-year flood protection is ensured in all areas of development. Interim improvements (such as temporary debris basin, earthen channels/berms, check dams, sand bag barriers, or other temporary BMP and flood protection measures; refer to Mitigation Measure HWQ-1, bullet #6 and 7, below) shall be provided as development progresses to protect against flooding, erosion, siltation, and water quality impacts.
- 5) All subdivisions implemented as part of the Specific Plan shall be required to detain any incremental increase in drainage within the Project Boundary until the Riverside County Flood Control and Water Conservation District Master Drainage Plan ("Banning" – Zone 5) is fully implemented downstream of the Project site.
- 6) Construction of each phase shall include an assessment of the size and flow patterns of the adjacent undeveloped areas of the Specific Plan site. Interim phase on-site facilities shall provide developed phases with required flood protection pursuant to Code.
- 7) Temporary basins shall be constructed to meet detention requirements and earthen channels/berms shall be used to divert and convey flows during construction phases.

Impact 4.9-3: Runoff Capacity

Threshold: Would the project create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Determination: *Less than Significant*

As discussed previously, future development facilitated by implementation of the proposed Project, including both on-site and off-site infrastructure, would result in changes to the absorption rates, drainage patterns, and the corresponding rate and amount of surface runoff of the existing Project area. The proposed land uses would be located in previously undisturbed areas, and would result in new impervious surfaces that would generate additional stormwater

flows. However, site development resulting from the implementation of the Specific Plan would include upgrades to drainage and stormwater facilities that would either prevent site development from causing an exceedance of existing downstream drainage system capacity or result in an increase in that capacity (as, for example, increasing the size of the Smith Creek culvert under Wilson Street). As indicated in Appendix G, *Hydrology Studies*, peak flow rates within the Smith Creek and Pershing Channel culverts beneath Wilson Street are estimated to be 3,518 cubic feet per second (cfs) and 946 cfs, respectively under existing conditions. Under the proposed condition, these flow rates are reduced to 3,413 cfs and 740 cfs, respectively. Based on these studies, the proposed project would not increase runoff capacity when compared to existing conditions.

While the development of the site would introduce urban uses into a currently undeveloped area with corresponding increases in potential pollutants that could impact storm water runoff from the site, water quality BMPs implemented pursuant to existing regulations, previously described in Impact Analysis 4.9-1, would reduce these impacts to a less than significant level in the construction phase, interim development phase, and final build out phase of the Project. Accordingly, Project impacts relative to flood control system capacity and water quality would be less than significant.

Impact 4.9-4: 100-Year Flood Hazard Areas

Threshold: Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Determination: Less than Significant with Mitigation Incorporated

As indicated on Exhibit 4.9-2, *Flood Hazards Map*, a portion of the proposed Project is currently located within a mapped 100-year floodplain.¹⁸ The main areas of the Project site susceptible to flooding are along Wilson Creek and the area south of the SCE easement. In addition, areas adjacent to Wilson Creek are subject to sheetflow conditions. Pursuant to the Project's Master Drainage Plan and Master Grading Plan, all building pads within the Specific Plan would be constructed so that they are free from flood hazard for the 100-year frequency storm by elevating finished floor elevations above the 100-year level of flood protection (refer to Mitigation Measure HWQ-1, above). The project site will be designed to effectively drain the Project area into Smith Creek and/or Pershing Channel and will include improvements that would reduce the potential for flooding due to sheet flow or flash flood conditions. The main purpose of the backbone drainage system proposed for the project is to ensure that effective drainage is provided throughout the development further reducing the potential risk associated with flooding.

¹⁸ City of Banning Comprehensive General Plan and Zoning Ordinance EIR, Exhibit III-16, *Terra Nova Planning, Inc.*, 2005

As part of the Tentative Tract Map process (currently underway for this Project), the Applicant will be required to request a Conditional Letter of Map Revision (CLOMR) from FEMA, to revise the FEMA flood plain maps within the Project area. The request for a CLOMR would be supported by detailed flood hazard analyses prepared by a qualified Registered Professional Engineer in accordance with Part 65 of the NFIP regulations and the FEMA MT-2 application forms package. Once the Project has been completed (constructed), a revision to the FEMA Flood Insurance Rate Map (FIRM) to reflect the "As-built" condition would be requested. Accordingly, the development of the Project would not result in the placement of structures within the 100-year flood plain and there would be a less than significant impact with implementation of Mitigation Measure HWQ-1.

Impact 4.9-5: Flooding

Threshold: *Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.*

Determination: Less than Significant with Mitigation Incorporated

The Project site is not located within the mapped inundation area of any dam. There are no levees on or near the site. Flood control facilities described in the "Existing Conditions" portion of this Section, and discussed in previous impact discussions above (4.9-1, 4.9-2, 4.9-3, and 4.9-4), would protect the Project site from flooding, including flash floods in Smith Creek.

The proposed North Basin at the northern end of the Project area is able to detain approximately 290 AF of runoff. According to the Backbone Drainage Study in Appendix G, this basin should be sized to accommodate 142.16 AF of runoff and sediment load during a 100 year storm event. This basin would capture the sediment yield and flows from 1,955 acres north of the Project area. In addition, the proposed backbone drainage system through the golf course area will include areas for storm drain detention, which in conjunction with the North Basin will prevent risk of exposure to flooding. As proposed the Project's backbone drainage facilities will mitigate the runoff under the developed condition that would potentially create flooding hazards. There is no significant basin failure hazard, as the basin will be excavated rather than creating a "dam" face (the basin would not fall under the jurisdiction of the State's Division of Safety of Dams), and flows would be detained within the downstream facilities along the golf course fairway.

Construction of each phase shall include an assessment of the size and flow patterns of the adjacent undeveloped areas of the Specific Plan site. Interim phase onsite facilities shall provide developed phases with required flood protection pursuant to Code. Temporary basins shall be constructed to meet detention requirements and earthen channels/berms shall be used to divert and convey flows during construction phases (refer to Mitigation Measure HWQ-1).

Accordingly, impacts would be less than significant with implementation of Mitigation Measure HWQ-1.

Impact 4.9-6: Inundation by Seiche, Tsunami, or Mudflow

Threshold: *Would the project be subject to inundation by seiche, tsunami, or mudflow?*

Determination: *Less than Significant*

Seiche is an oscillating wave in an enclosed body of water that is usually a result of seismic or atmospheric disturbances. Tsunamis are very large ocean waves that are caused by an underwater earthquake or volcanic eruption and often cause extreme destruction when they strike land. The proposed Project area is not located on or near the coast or a large body of water. Therefore, it would not be subject to seiche wave action or tsunami hazards.

A mudflow is a downhill movement of soft, wet, unconsolidated earth and debris, made fluid by rain or melted snow and often build up great speed. These types of hazards typically occur in areas of topographic relief. Due to the topography of the Project area, particularly in the foothill areas along the northern perimeter of the Project area, there are potential hazards related to mudflow.

The specific Planning Areas in the proposed Project that would be of concern in this regard include PAs 50, 51, 52, 60, and 61. These PAs are surrounded by undeveloped open space areas (steep canyons) to the east, in which the threat of mudflow during significant storm events could be a factor; however, Project design includes several debris/detention basins along the northeastern perimeter of the Project area. These basins would serve to mitigate impacts related to mudflow that could occur with major storms by capturing any sediment and debris that may be generated in these off-site areas and preventing these materials from being transported into the planning areas adjoining these undeveloped areas to the east. In addition, compliance with flood control measures imposed by regional and local agencies, as well as implementation of the Butterfield Specific Plan Drainage Plan, would further reduce the impacts associated with mudflow, to a less than significant level. As recommended in the Project's geotechnical reports (Appendix E) during mass grading activities, geotechnical stabilization would occur on the periphery of the Project area within open space areas, and would be graded appropriately to reduce mudflow susceptibility. For additional discussion, please refer to Section 4.7, *Geology, Soils and Seismicity*.

4.9.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

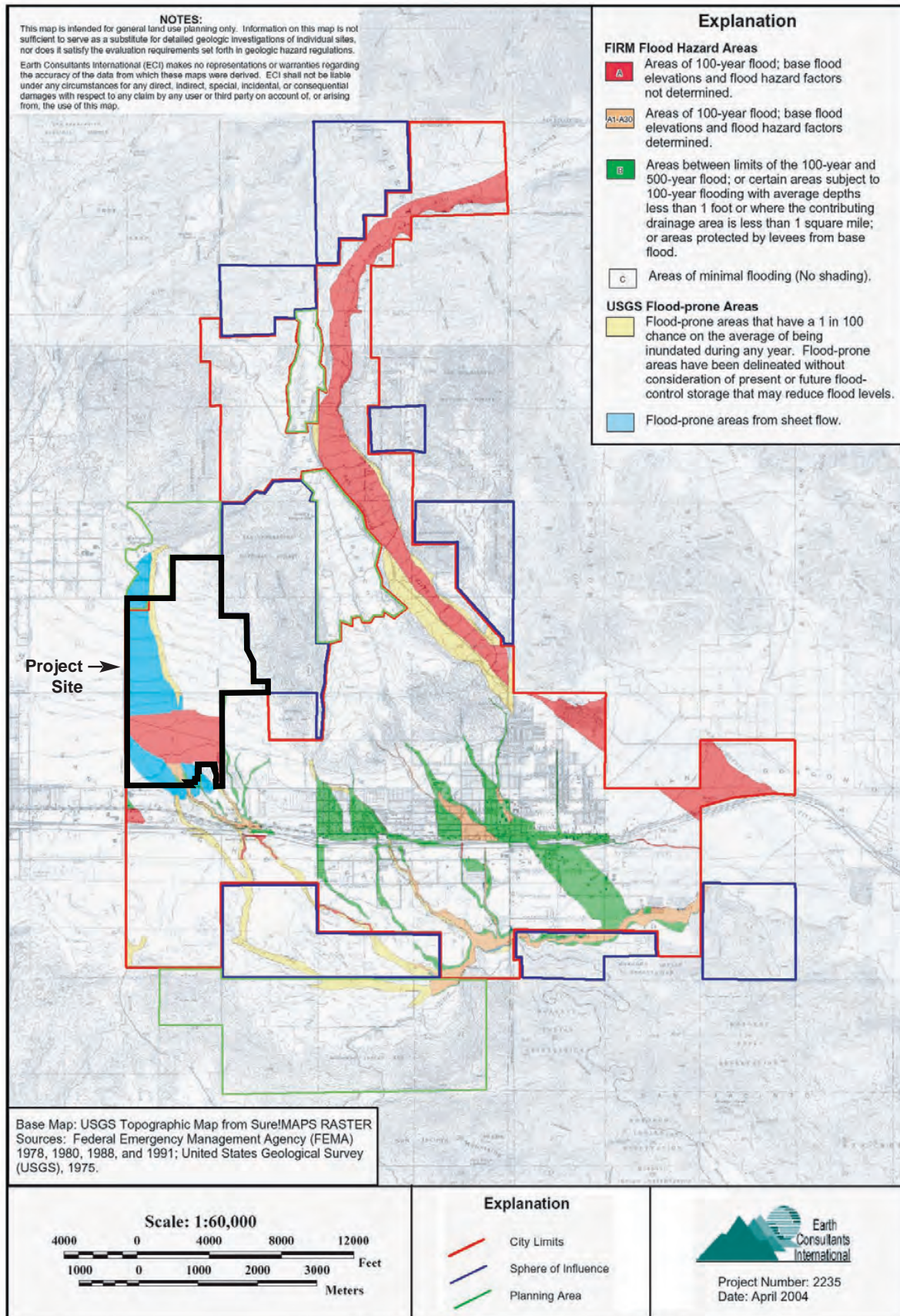
Determination: Less than Significant with Mitigation Incorporated

Cumulative impacts to hydrology and water quality are impacts that would result from incremental changes that degrade water quality or contribute to drainage and flooding problems within the Banning area. The City of Banning's *General Plan EIR* notes that the construction of development resulting from implementation of the City's *General Plan* would eventually contribute to increased runoff generated in the entire General Plan Study Area, in which the proposed Project is included, and proposed Mitigation Measures to reduce these impacts to a less than significant level.

Although the proposed Project in combination with other cumulative projects in the Banning area represents an incremental change in regional drainage patterns and additional developed surfaces, the proposed Project as well as other cumulative projects are required to construct a number of on- and off-site facilities that would mitigate cumulative drainage and flooding conditions, as well as mitigate potential water quality impacts, as discussed throughout this section. With the Project Design Features proposed to mitigate potential impacts to hydrology and water quality and the regulatory requirements applicable to all development within the Banning area, the proposed Project would not significantly contribute to cumulative or regional drainage or water quality impacts.

4.9.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

After incorporation of Project Design Features and compliance with existing regulatory requirements, the recommended mitigation measure in this section would reduce remaining hydrology and water quality impacts to a less than significant level.



SOURCE: City of Banning General Plan, 2006 (Exhibit V-5)

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR



NOT TO SCALE

5/27/11 JN: 65-100290

Flood Hazards Map

AR 004008
EXHIBIT 4.9-2

AR000612

SECTION 4.10

LAND USE AND PLANNING

4.10.1 INTRODUCTION

This section of the EIR briefly describes the existing land uses on the Butterfield Specific Plan site and those in the surrounding area and evaluates the potential for land use impacts associated with the implementation of the proposed Project. The analysis focuses on the potential for the proposed Project to result in conflicts between proposed land uses on the site and the existing and/or proposed land uses in the vicinity of the Project. This section also discusses whether the proposed General Plan Amendment (GPA) and zone change (ZC) conflicts with the remainder of the City's General Plan and/or Zoning Ordinance and the relationship of the proposed land use changes to relevant planning policies that guide land use decisions.

Data used in the preparation of this section were obtained from the *City of Banning General Plan* (January 2006), the *Environmental Impact Report for the City of Banning Comprehensive General Plan and Zoning Ordinance* (June 2005), the *County of Riverside General Plan and EIR* (adopted October 2003 and amended 2008), and the *City of Banning Zoning Ordinance* (Chapter XX of the Municipal Code), other data provided by the City of Banning, as well as various Internet sources. The Land Use analysis prepared contained in the Deutsch Specific Plan's certified EIR has also been consulted.

A comment letter received in response to the IS/NOP from the Southern California Association of Governments (SCAG) states that the proposed Project has been deemed regionally significant. SCAG asked that the Project EIR discuss any conflicts between the Project and applicable general plan and regional plans, including SCAG's Regional Comprehensive Plan and Guide, Regional Transportation Plan and Compass Growth Vision. An analysis of potential conflicts with land use policies has been completed and included in this section of the EIR as requested by SCAG.

4.10.2 EXISTING CONDITIONS

4.10.2.1 ENVIRONMENTAL SETTING

Existing Land Use Setting

The proposed Butterfield Specific Plan Project area encompasses 1,543 acres within the northwest portion of the City of Banning. The City of Beaumont is located immediately to the west of the Project site. Of these 1,543 acres, a small portion (approximately 21 acres) is located within unincorporated Riverside County and outside the City's Sphere of Influence, although this area is located within the City's General Plan Planning Area. The Project site is located in the San Geronio Pass area, which links the Riverside and Perris Valleys with the lower desert

areas of the Coachella Valley. The Project site is generally surrounded by unincorporated Riverside County and portions of the San Bernardino Mountains to the north and northeast; Highland Home Road and the Banning Bench to the east; existing residential to the east and south; Wilson Street to the south; and Highland Springs Avenue and the City of Beaumont to the west.

Existing Land Uses

The Project site is currently undeveloped and has historically been used for farming and livestock grazing. The existing site topography is relatively level, sloping from north to south, and has been heavily disturbed by past agricultural activities. Livestock grazing continues to this day and is expected to continue on undeveloped grassland during the implementation phase of the project following initial mass grading and reseeded of the site. Smith Creek, a natural earthen channel approximately 30 feet wide and ranging in depth from three to five feet, traverse the center of the site from north to south. Pershing Channel, a concrete drainage ditch, is located along the southern portion of site's the east boundary along Highland Home Road. A 16.5-foot-wide Southern California Gas Company easement, containing a 30-inch diameter high-pressure natural gas pipeline, traverses east to west through the southern portion of the Project site. Two adjacent Southern California Edison (SCE) easements with a combined width of 430 feet traverse the middle of the site from east to west. The easement contains high-voltage electric transmission lines strung from 40-foot high metal towers and 30-foot high wooden "H" beam poles. Additional overhead SCE power lines on wooden poles are located in the north and northeast portions of the site. An electrical substation, owned and operated by the City of Banning, has been constructed near the north terminus of Highland Home Road within the Project boundaries. An out of use well is located within the site and debris piles area scattered through the site. Apart from the electrical transmission towers and electrical substation there are no structures on the site.

Surrounding Land Uses

The San Bernardino National Forest abuts portions of the Project site to the north and to the east. Also to the north, across Brookside Avenue, is the Highland Springs County Club/Century Homes project. Northeast of the Project site is an existing golf course and further northeast is the Highland Springs Mobile Home Village. Southeast of the Project site are single family homes and Highland Home Road. The partially-developed, primarily residential Sundance Specific Plan, located in the City of Beaumont, faces the Project site on the west side of Highland Springs Avenue. Along the southern boundary of the site, north of Wilson Street, is a mix of multi-family housing developed at 8.1-16 du/acre and low-density single-family homes developed at 2.4-4.1 du/acre. South of Wilson Street and north of I-10 is property designated Highway and Community Commercial in the City's General Plan and developed with a mix of office, hospital, mobile home park, and residential land uses.

4.10.2.1 REGULATORY FRAMEWORK

Refer to the applicable EIR section for additional regulatory background. This section focuses on the regulatory framework related to land use.

Federal

There are no Federal land use regulations applicable to the proposed Project.

State

California Government Code (CGC) Sections 65450 - 65454 (Specific Plans)

CGC Sections 65450 - 65454 authorize the preparation and adoption of Specific Plans as a means of implementing a community's General Plan. The CGC provides as follows¹:

§65450. After the legislative body has adopted a general plan, the planning agency may, or if so directed by the legislative body, shall, prepare specific plans for the systematic implementation of the general plan for all or part of the area covered by the general plan.

§65451(a) A specific plan shall include a text and a diagram or diagrams which specify all of the following in detail:

(1) The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.

(2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.

(3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.

(4) A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).

(b) The specific plan shall include a statement of the relationship of the specific plan to the general plan.

§65452. The specific plan may address any other subjects which in the judgment of the planning agency are necessary or desirable for implementation of the general plan.

¹ <http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=65001-66000&file=65450-65457>, Accessed August 25, 2010.

§65453. (a) A specific plan shall be prepared, adopted, and amended in the same manner as a general plan, except that a specific plan may be adopted by resolution or by ordinance and may be amended as often as deemed necessary by the legislative body.

(b) A specific plan may be repealed in the same manner as it is required to be amended.

§65454. No specific plan may be adopted or amended unless the proposed plan or amendment is consistent with the general plan.

Regional

Southern California Association of Governments² (SCAG):

The Southern California Association of Governments is the largest of nearly 700 councils of government in the United States. It functions as the Metropolitan Planning Organization (MPO) for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The region encompasses a population exceeding 19 million persons in an area of more than 38,000 square miles. As the designated MPO, SCAG is mandated by the Federal government to research and draw up plans for transportation, growth management, hazardous waste management, and air quality. Additional mandates exist at the State level.

SCAG is responsible for the maintenance of a continuous, comprehensive, and coordinated planning process. SCAG is also responsible for the development of demographic projections, as well as the development of integrated land use, housing, employment, transportation programs, measures, and strategies for portions of the South Coast Air Quality Management Plan (AQMP).

SCAG Regional Comprehensive Plan

SCAG's 2008 Regional Comprehensive Plan (RCP) addresses regional issues such as housing, traffic/transportation, water, and air quality. The RCP serves as an advisory document to local agencies in the Southern California region for their information and voluntary use in preparing local plans and handling local issues of regional significance. The RCP presents a vision of how Southern California can balance resource conservation, economic vitality, and quality of life. The RCP identifies voluntary best practices to approach growth and infrastructure challenges in an integrated and comprehensive way. It also includes goals and outcomes to measure progress toward a more sustainable region.

Specific RCP policies applicable to the proposed Project, as identified by SCAG, are listed in the Project impacts discussion of this Section, along with a discussion of the Project's consistency with each of these policies.

² <http://www.scag.ca.gov/>, accessed August 25, 2010.

SCAG Compass Blueprint Growth Visioning Program

In 2001, SCAG started a regional visioning process (i.e., Southern California Compass) to develop a strategy for regional growth that would accommodate growth while providing for livability, mobility, prosperity, and sustainability. The Compass Blueprint Growth Vision is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in upcoming years. The Growth Vision is driven by four key principles: mobility - getting where we want to go; livability - creating positive communities; prosperity - long-term health for the region; and, sustainability - promoting efficient use of natural resources. To realize these principles on the ground, the Growth Vision encourages:

- Focusing growth in existing and emerging centers and along major transportation corridors;
- Creating significant areas of mixed-use development and walkable communities;
- Targeting growth around existing and planned transit stations; and,
- Preserving existing open space and stable residential areas.

The Compass Blueprint strategy promotes a stronger link between region-wide transportation and land use planning and encourages creative, forward-thinking, and sustainable development solutions that fit local needs and support shared regional values. In the long-term, the Growth Vision is a framework that is intended to help local jurisdictions address growth management cooperatively and to coordinate regional land use and transportation planning.

SCAG Regional Transportation Plan (2008 RTP)

On May 8, 2008, SCAG adopted its 2008 Regional Transportation Plan (RTP). The 2008 RTP presents the transportation vision for the SCAG region through the year 2035 and provides a long-term investment framework for addressing the region's transportation and related challenges. The RTP focuses on maintaining and improving the transportation system through a balanced approach and considers system preservation, operation, and management; improved coordination between land-use decisions and transportation investments; and, strategic expansion of the system to accommodate future growth.

Colorado River Basin Regional Water Quality Control Board (CRBRWQCB)

The CRBRWQCB protects ground and surface water quality in the Colorado River Basin region. The Region covers approximately 13,000,000 acres (20,000 square miles) in the southeastern portion of California. It includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. It is bounded on the east by the Colorado River; to the south

by the Republic of Mexico; the west by the Laguna, San Jacinto, and San Bernardino Mountains; and to the north by the New York, Providence, Granite, Old Dad, Bristol, Rodman, and Ord Mountain Ranges.

The Colorado River Basin Region is located in the most arid area of California. Despite the relatively dry climate, the Region contains some substantial surface water bodies, including the Colorado River and the Salton Sea. Many of the alluvial valleys in the Region are underlain by ground water aquifers that in many cases are the sole source of water for local areas. The City of Banning is one of the municipalities located within the jurisdiction of the CRBRWQCB. The Hydrology section of this EIR (Section 4.9) fully addresses stormwater treatment, water quality issues and groundwater hydrogeology issues and the Project's consistency with applicable plans and standards.

South Coast Air Quality Management District (SCAQMD), Air Quality Management Plan (AQMP)

A description of the AQMP is provided in Section 4.3 (Air Quality) of this EIR. This section fully addresses project related air quality impacts and assesses the consistency of the project with applicable plans and standards.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP or Plan) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on Conservation of species and their associated Habitats in Western Riverside County. The MSHCP Plan Area encompasses approximately 1.26 million acres (1,966 square miles); it includes all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the jurisdictional areas of the Cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, and San Jacinto. A complete description of the MSHCP is provided in Section 4.4 (Biological Resources) of this EIR. This section fully addresses project related biological resource-related impacts and assesses the consistency of the Project with applicable plans and standards.

Local

City of Banning General Plan³:

The City of Banning General Plan contains the City's development goals, objectives and policies. The General Plan is implemented through the decisions made by the City's Planning

³ The current City of Banning General Plan can be viewed at:
<http://www.ci.banning.ca.us/DocumentCenterii.aspx?FID=19>

Commission and City Council, by the City's zoning and subdivision ordinances, and by adopted specific plans. The General Plan was updated and adopted in 2006 and contains 21 elements discussed in the following chapters:

- **Chapter III, Community Development:** This Chapter addresses the following Elements: Land Use, Economic Development, Circulation, Parks and Recreation, and Housing. The purpose of this chapter is to define and specify how and where the City will grow and develop.
- **Chapter IV, Environmental Resources:** This Chapter addresses the following Elements: Water Resources, Open Space and Conservation, Biological Resources, Archaeological and Historic Resources, Air Quality, and Energy and Mineral Resources. The purpose of this chapter is to define what environmental resources exist and their availability, provide preservation and conservation for these resources, and provide background information on these resources within and around the City.
- **Chapter V, Environmental Hazards:** This Chapter addresses the following Elements: Geotechnical, Flooding & Hydrology, Noise, Wildland Fire Hazards, and Hazardous & Toxic Materials. The purpose of this chapter is to provide information regarding the geological and seismic conditional and hazards affecting the City, address potential drainage and flooding hazards within the community, minimize or avoid community exposure to excessive noise levels, address and protect the community from potential wildland fire hazards, and protect the community by presenting methods of safe management for hazardous and toxic materials.
- **Chapter VI, Public Services and Facilities:** This Chapter addresses the following Elements: Water, Wastewater & Utilities, Public Building & Facilities, Schools & Libraries, Police & Fire Protection, and Emergency Preparedness. The purpose of this chapter is to establish City policies and programs directed at the adequate provision of domestic water, sewage treatment, and utility services to the community, accommodate public service and facility needs of the community, ensure adequate and accessible educational facilities are provided to the community, ensure the provision of adequate police and fire services, and provide plans to deal with natural and man-made disasters that could affect the City.

General Plan Land Use Element

The General Plan's Land Use Element provides a long-term vision of the development of the community and establishes the types and quantities of land available within the City, its Sphere of Influence, and the planning area, for specific land uses. The Land Use Element defines land use designations, provides statistics regarding vacant and developed lands within these

designations, discusses strategies for future development, and includes Goals, Policies, and Programs.

Specific Plans are required for projects that propose more than one type of residential land use, commercial land uses and/or industrial land uses, or a combination of these, within one project site. Specific Plans are also required when a project is proposed within a previously undeveloped area, where infrastructure master planning will be required, and when project phasing occurs. Currently, the Banning General Plan Land Use Map shows the entire proposed Project site with the approved Deutsch Specific Plan land uses and the Specific Plan overlay; refer to Exhibit 4.10-1, *Existing City of Banning General Plan Land Use Designation*.

City of Banning Municipal Code and Zoning Ordinance

Zoning refers to particular land uses that are legally permitted or prohibited on any given parcel of land. Zoning is the method the City uses to control land uses in accordance with the City's General Plan Goals and Policies. The Banning Zoning Ordinance is found in **Municipal Code Title 17, Zoning**⁴. The City of Banning Zoning Ordinance establishes a Specific Plan Overlay that facilitates the logical, coordinated planning of large areas for a variety of land uses and types of development. When a specific plan is adopted, no public works project, tentative map or parcel map, or other land use entitlement may be approved, adopted or amended within an area covered by a Specific Plan unless it is determined to be consistent with the adopted Specific Plan. The City of Banning's Zoning Map illustrates the City's zoning districts and indicates the Project area is covered by a Specific Plan overlay with underlying residential, commercial, and public facility zones; refer to Exhibit 4.10-2, *Existing City of Banning Zoning*.

4.10.3 SIGNIFICANCE THRESHOLD CRITERIA

Appendix G of the *CEQA Guidelines*, states that a project may be considered to have significant environmental effects related to land use and planning if it would:

- a) Physically divide an established community;
- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or,
- c) Conflict with any applicable habitat conservation plan or natural community conservation plan.

⁴ <http://library.municode.com/index.aspx?clientId=16203&stateId=5&stateName=California>, accessed September 14, 2010.

4.10.4 IMPACT ANALYSIS AND MITIGATION MEASURES

ANALYTIC METHOD

The analysis in this section focuses on whether the proposed Project would physically divided an established community or conflict with applicable land use plans, policies, and regulations or an adopted habitat conservation or natural community conservation plan. Because conflict with applicable plans, policies, and regulations could occur as a result of policy changes or from physical development this analysis includes all physical components of the proposed Project, including access and infrastructure improvements, as well as policy components of the project (GPA) as described in Chapter 3 (Project Description). The analysis also includes a discussion of consistency of the proposed Specific Plan and GPA with the remainder of the General Plan.

The proposed Project is an amendment and restatement of the previously approved Deutsch Specific Plan and the impacts discussed below are generally consistent with the impacts described in the 1985 Deutsch Specific Plan EIR and subsequent EIR Update in 1993, both of which have been certified and are included by reference in this analysis.. Accordingly, this analysis is an update that reflects the currently proposed Butterfield Specific Plan, including the offsite infrastructure and 21-acre unincorporated parcel (PA 43B). The analysis is further updated to reflect the City's 2006 General Plan and SCAG's most current applicable regional plans and policies.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing local, State and Federal regulations noted below will avoid or mitigate potential impacts related to land use and planning. The following Project design features will also reduce, avoid, or offset potentially adverse impacts:

- 1) To ensure compatibility with the existing residential development on the north side of Mockingbird Lane, the Project has designated Planning Area 50 as Low Density Residential, with an average lot size of 7,500 sq. ft. Furthermore, starting at the back of lots along the existing lots on the north side of Mockingbird Lane, there would be approximately 390 ft. of open space between the rear property lines of lots located on Mockingbird Lane and the southern boundary of Planning Area 50.
- 2) The approved Deutsch Specific Plan included 351 acres of residential land use in its Planning Area 1 and 31 acres of park in Planning Area 2⁵. In comparison, within the same area the Butterfield Specific Plan Project proposes a more balanced mixed of land uses including 209.2 acres of residential use in PAs 50, 51, 52, 60, and 61; 71.8 acres of

⁵ Refer to The Butterfield Specific Plan, Exhibit 1.3, *Specific Plan Comparison*.

open space in PAs 67, 69, 73, 74 and 75; a 11.3 acre school site in PA 68; and 4.2 acres for an existing utility in PA 70.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.10-1: Physically Divide an Established Community

Threshold: *Would the project physically divide an established community?*

Determination: *No Impact*

Development of the proposed Project site is currently governed by an adopted Specific Plan and would be generally consistent with the City of Banning General Plan and Zoning Ordinance. Since the Project site is vacant and undeveloped, there is no contiguous established community located on the site that would be divided by the implementation of the Project. The site is surrounded by a mix of commercial, residential, institutional and public uses, and roadways border the site to the south, east and west. Development outside the Project boundaries would not be governed by the proposed project and no incursion into, or division of, existing residential neighborhoods or other uses would occur as a result of implementation of the proposed Project. Neither would development involve the expansion of the approved Deutsch Specific Plan into an established community. Rather, the proposed Project would continue a pattern of development that is already in place to the south, east, and west of the site, would provide desirable linkages between existing developments, extend/improve the City's circulation system in a manner consistent with the City's Circulation Element, and provide parks, schools, and other public facilities that would serve both proposed and existing land uses in the area.

Off-site subsurface utility pipelines that would serve the Project would be constructed in existing street right-of-way and would not divide any established community. Because the proposed Project would be consistent with surrounding land uses, as designated by the General Plan, and because no existing communities exist on the Project site, the proposed Project would not divide any existing communities and there would be **no impact** associated with the division of an established community

Impact 4.10-2: Conflict with Land Use Policy or Regulation

Threshold: *Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

Determination: *Less than Significant*

Conflict with City of Banning General Plan

Table 4.10-1: *Project Consistency with Land Use-Related Goals and Policies*, addresses the consistency of the Project with adopted City of Banning General Plan policies. Those policies that are relevant to the proposed Project are included. Those policies addressing other topical issues, such as biological resources, air quality, or aesthetics, are discussed in their respective sections of this EIR. The Applicant proposes an amendment to the General Plan in order for the General Plan Land Use Map to reference the Butterfield Specific Plan as an amendment and restatement of the Deutsch Specific Plan. Refer to Exhibit 4.10-3, *Proposed Amended City of Banning General Plan Designation*. The proposed revisions are consistent with the overall intent of the original Specific Plan, would not result in an increase in the number of residential units proposed for the Specific Plan and would be generally consistent with other land use designations within the original Specific Plan. The proposed GPA would allow for the orderly planned development of the Butterfield Specific Plan site in a manner that is consistent with current market requirements and revised regulatory requirements. Therefore the proposed GPA would not conflict with the existing policies of the General Plan.

BUTTERFIELD SPECIFIC PLAN
Draft Subsequent EIR

4.10 LAND USE AND PLANNING

Table 4.10-1
Project Consistency with Land Use-Related Goals and Policies

Goals and Policies	Consistency Analysis
Land Use Element: Citywide Policies, Goals and Programs	
Goal: A balanced, well-planned community that provides a functional pattern of land uses and enhances the quality of life for all Banning residents.	
Policy 1: The City maintains a land use map that assures a balance of residential, commercial, industrial, open space and public lands.	<u>Consistent.</u> The proposed Project includes a mix of residential, commercial, open space, and public facility land uses and is generally consistent with anticipated development of the site as provided for in the approved Deutsch Specific Plan.
Policy 3: Development in all land use categories shall be of the highest quality.	<u>Consistent.</u> The proposed Project would be developed pursuant to the Design Guidelines and Development Standards contained in the Butterfield Specific Plan, which standards and guidelines conform to or exceed the standards contained in the City's Municipal Code and General Plan, ensuring development of a high-quality master-planned community.
Policy 4: Specific Plans shall be required for project proposing one or more of the following: a. More than one residential land use designation; b. A combination of residential, recreational, commercial and/or industrial land use designation; or, c. Extension of infrastructure (water, sewer and roadways) into an area where these do not exist.	<u>Consistent.</u> The proposed Project is an amendment and restatement of the approved Deutsch Specific Plan and meets the requirements of the cited General Plan Policy. The Project includes a mix of residential types and densities, incorporates commercial and public facility land uses, extends infrastructure and provides for recreational land uses and amenities
Policy 5: All land use proposals shall be consistent with the goals, policies, and programs of this General Plan and with the Zoning Ordinance.	<u>Consistent.</u> The proposed Project is an amendment and restatement of the approved Deutsch Specific Plan, which was incorporated into the City's 2006 General Plan. The Development Standards contained in the Specific Plan are based upon the City's Zoning Code, with minor modifications that would permit innovation in land uses and development design. Therefore, the proposed Specific Plan Project would not conflict with this land use policy.
Land Use Element: Residential Goals, Policies, and Programs	
Policy 1: The land use map shall provide a range of housing densities while considering land use compatibility with non-residential land uses.	<u>Consistent.</u> The proposed Project offers a range of densities, and integrates residential and open space uses to minimize land use incompatibility. The land use plan provides screening and buffering of residential uses from commercial or public facilities uses where appropriate. Therefore, the proposed Specific Plan would not conflict with this land use policy
Policy 2: Projects adjacent to existing neighborhoods shall be carefully reviewed to assure that neighborhood character is protected.	<u>Consistent.</u> Existing neighborhoods near the Project area boundaries include residential uses that are similar in type and density to those proposed within the Specific Plan. Proposed commercial uses within the Specific Plan are located in proximity to existing commercial and institutional uses and therefore are consistent with neighborhood character. Therefore, the proposed Specific Plan would not conflict with this land use policy

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4.10 LAND USE AND PLANNING

Table 4.10-1 (continued)
Project Consistency with Land Use-Related Goals and Policies

Goals and Policies	Consistency Analysis
Land Use Element: Commercial and Industrial Goals, Policies, and Programs	
Policy 1: The land use map shall include sufficient commercial lands to provide a broad range of products and services to the City and region, while carefully considering compatibility with adjacent residential lands.	<u>Consistent.</u> The Project proposes approximately 36 acres of commercial land use in two planning areas within the Project site. These commercial planning areas are located at the perimeter of the Project site and incorporate transition buffering for compatibility with adjacent residential land uses. Therefore, the proposed Specific Plan would not conflict with this land use policy.
Circulation Element: Citywide Policies, Goals and Programs	
Goal: A safe and efficient transportation system.	
Policy 1: The City's recommended General Plan Street System shall be strictly implemented.	<u>Consistent.</u> The roadways to be implemented as part of the proposed Project have been designed in accordance with the General Plan. Refer to Section 4.13, <i>Transportation and Traffic</i> , for further discussion.
Policy 2: Local streets shall be scaled to encourage neighborhood interaction, pedestrian safety, and reduced speeds.	<u>Consistent.</u> Local streets within the Specific Plan are designed to City standards with posted speed limits of no more than 30 mph except on backbone loop collectors. All streets incorporate sidewalks and parkways. Bike and pedestrian trails and paseos are incorporated into the design to facilitate pedestrian access to parks, schools and commercial areas. Refer to Section 4.13, <i>Transportation and Traffic</i> , for further discussion. The Specific Plan would not conflict with this General Plan policy
Policy 10: Sidewalks shall be provided on all roadways 66 feet wide and wider. In Rural Residential land use designation, pathways shall be provided.	<u>Consistent.</u> The Specific Plan street sections provide for sidewalks on both sides of all streets right-of-way in excess of 65 feet. Refer to Section 4.13, <i>Transportation and Traffic</i> , for further discussion. The Specific Plan would not conflict with this General Plan policy
Policy 17: Golf cart paths and facilities shall be funded, to the greatest extent possible, by new development.	<u>Consistent.</u> Access for LSV/NEVs is incorporated into the Specific Plan's circulation system with combined bike/LSV striped lanes on all collector streets. The Specific Plan would not conflict with this policy.
Parks and Recreation Element: Citywide Policies, Goals and Programs	
Goal: A comprehensive bikeway, trail and walking path system that connects homes to work places, commercial venues and recreational facilities.	
Policy 2: The City will distribute parks and recreation facilities in a manner that is convenient to City neighborhoods and balanced within population concentrations.	<u>Consistent.</u> The proposed Project proposes 428.8 acres of open space and incorporated mini parks, neighborhood parks and community parks throughout the Specific Plan. The Specific Plan also proposes construction of a golf course that will be open to the public. The proposed Specific Plan parks will address an identified deficiency in park and recreational area within the City and immediate neighborhood. The Specific Plan would not conflict with this policy.
Policy 3: Require developers of new residential projects to provide on-site recreational and/or open space facilities in addition to City-wide park requirements.	<u>Consistent.</u> The Project proposes to provide on-site recreational, open space and park facilities. The Specific Plan would not conflict with this policy.

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4.10 LAND USE AND PLANNING

Table 4.10-1 (continued)
Project Consistency with Land Use-Related Goals and Policies

Goals and Policies	Consistency Analysis
Housing Element: Citywide Policies, Goals and Programs	
Goal: Housing Opportunities – Provide a wide range of housing types to meet the existing and future needs of planning area residents.	
Policy 1: Provide a variety of residential development opportunities in Banning, ranging from very low density to high density development as described in the Community Development Element and Plan Map in accordance with the Regional Housing Needs Assessment.	<u>Consistent.</u> The Specific Plan will provide approximately 5,387 residential units ranging in density from 2 du/ac to 18 du/acre and incorporating single family detached, cluster housing, multifamily housing and potentially age restricted active adult housing consistent with the requirements of the General Plan Housing Element and the City's RHNA. The Specific Plan would not conflict with this General Plan policy.
Open Space and Conservation Element: Citywide Policies, Goals and Programs	
Goal 1: Open space and conservation lands that are preserved and managed in perpetuity for the protection of environmental resources or hazards, and the provision of enhanced recreational opportunities and scenic qualities in the City.	
Goal 2: A balance between the City's built and open space environment and local and regional protection and preservation of its unique environment.	
Policy 4: The City shall preserve all watercourses and washes necessary for regional flood control, groundwater recharge areas, and drainage for open space and recreational areas.	<u>Consistent.</u> The proposed Specific Plan includes preservation of the natural functions of Smith Creek and incorporates detention and water quality basins together with recharge areas and water storage reservoirs which provide open space and potential recreational opportunities. The Specific Plan would not conflict with this policy.
Flooding and Hydrology Element: Citywide Policies, Goals and Programs	
Goal 1: A comprehensive system of flood control facilities and services effectively protecting lives and property.	
Policy 6: All new development shall be required to incorporate adequate flood mitigation measures, such as grading that prevents adverse drainage impacts to adjacent properties, on-site retention of runoff, and the adequate siting of structures located within flood plains.	<u>Consistent.</u> The Specific Plan include a system for flood control and drainage consistent with the objectives of the Master Plan for Drainage adopted by the County and would eliminate existing flood inundation areas impacting the project site while detaining flows to eliminate downstream impacts. The Specific Plan would not conflict with this policy.
Noise Element: Citywide Policies, Goals and Programs	
Goal 1: A noise environment that complements the community's residential character and its land uses.	
Policy 1: The City shall protect noise sensitive land uses, including residential neighborhoods, schools, hospitals, libraries, churches, resorts and community open space from potentially significant sources of community noise.	<u>Consistent.</u> The Specific Plan incorporates measures for buffering sensitive receptors from community noise through the use of specific siting, block walls, berming and other noise attenuating measures where needed. The Specific Plan would not conflict with this policy.
Policy 8: The City shall impose and integrate special design features into proposed development that minimize impacts associated with the operation of air conditioning and heating equipment, on-site traffic, and use of parking loading and trash storage facilities.	<u>Consistent.</u> Noise is regulated by the City of Banning pursuant to Section 11D-02 of the City's Municipal Code, Ord. No. 11381, 1004 with which the Specific Plan would comply. The Specific Plan would not conflict with this policy.
Wildland Fire Hazards Element: Citywide Policies, Goals and Programs	
Goal: To protect human life, land, and property from the effects of wildland fire hazards.	
Policy 4: The City shall make every attempt to assure that adequate supplies and pressures are available during a fire, earthquake or both.	<u>Consistent.</u> The Specific Plan incorporates water storage tanks to maintain adequate water pressure and water availability as required by City ordinance. The Specific Plan would not conflict with this policy.

City of Banning Zoning Ordinance

The City's Zoning Ordinance regulates and restricts the uses of land and buildings, heights of buildings, areas of yards, other open spaces, and the location of buildings and improvements within the City of Banning. As identified in the Project Description, the proposed Specific Plan site is designated as a Specific Plan Area and shows various residential uses (residential estate, low density residential, medium density residential and high density residential), general commercial, public use, and open space zones. The current zoning of the site conforms to the locations of specific plan uses contained in the Deutsch Specific Plan approved in 1993. The proposed zone change is intended to reference site zoning with the amended and restated Butterfield Specific Plan. Refer to Exhibit 4.10-4, *Proposed Amended City of Banning Zoning*. Accordingly, the proposed zone change would not conflict with the remainder of the Zoning Ordinance.

SCAG RTP/Compass Growth Vision

SCAG has prepared a comprehensive planning document intended to serve the SCAG region as a framework for decision making over the next 20 years. The plan includes a set of broad goals for the region and identifies strategies designed to guide local decision making. The consistency analysis of the proposed Project with relevant and applicable policies of SCAG's RCP is provided in Table 4.10-2: *SCAG Goals and Principles Consistency Analysis*. As detailed in Table 4.10-2, the proposed Project is considered consistent with relevant and applicable policies of the RCP regarding growth-inducing impacts.

Table 4.10-2
SCAG Goals and Principles Consistency Analysis

Note: SCAG submitted a response letter in regards to the Notice of Preparation for the Butterfield Specific Plan EIR Project that was dated October 1, 2007 (refer to SCAG letter in Appendix A, *Expanded Notice of Preparation and Public Comments*). In 2008, SCAG updated their policies. The following Table 4.10-2 is the updated SCAG- suggested comparison table format, which includes all updated policies.

Goals/Principles		Consistency Statement
REGIONAL TRANSPORTATION PLAN		
RTP G1	Maximize mobility and accessibility for all people and goods in the region.	<u>Consistent.</u> The Project's proposed Circulation Plan provides a roadway system that extends the City's current circulation system into and through the Project site and provides efficient circulation routes throughout the Project area and this portion of the City. The Project is required to consult with the City of Banning and Riverside County Transit Authorities to expand scheduled bus service, to implement long-term public transportation projects, and to develop vanpools and subscription bus service where appropriate. Specific traffic improvements are proposed at roadways and intersections, in order to achieve acceptable levels of service. A traffic study was prepared for the Project. The traffic study addressed both on-site and off-site circulation movement. No safety impacts were identified.
RTP G2	Ensure travel safety and reliability for all people and goods in the region.	<u>Consistent.</u> Refer to Response to Goal RTP G1 above. All intersection and roadway improvements made within the Butterfield Specific Plan Project area would be constructed according to City standards. Section 4.13, <i>Transportation and Traffic</i> , identifies mitigation necessary to achieve acceptable levels of service. The proposed Project would integrate its circulation system with the City and Regional circulation system, provide roadway improvements to arterials adjacent to the proposed project and provide or contribute to the provision of circulation system improvements to accommodate the needs of regional growth and ensure the travel safety of residents. Therefore, the proposed Specific Plan would not conflict with this policy.
RTP G3	Preserve and ensure a sustainable regional transportation system.	<u>Consistent.</u> The proposed Project provide or contribute to the provision of improvements that would preserve and ensure a sustainable regional transportation system through implementation of its Circulation Plan. Therefore, the proposed Specific Plan would not be in conflict with this policy.
RTP G4	Maximize the productivity of our transportation system.	<u>Consistent.</u> The proposed Specific Plan would provide or contribute to the provision of improvements that would enhance the productivity of the local and regional transportation system. The Specific Plan would contribute to regional TUMF program as it develops. Therefore, the Specific Plan would not be in conflict with this policy.

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4.10 LAND USE AND PLANNING

Table 4.10-2 (continued)
SCAG Goals and Principles Consistency Analysis

Goals/Principles		Consistency Statement
RTP G5	Protect the environment, improve air quality, and promote energy efficiency.	<u>Consistent.</u> The Specific Plan include provisions for environmental protection including preservation and enhancement of riparian resources, water resources, including groundwater recharge, energy efficiency, including the provision for the use of solar energy, and will implement the most current version of all California Building Codes, including Green Building Standards. The project's lengthy implementation period of 30 years will allow development to incorporate emerging sustainable technologies as these develop. Therefore, the Specific Plan would not be in conflict with this policy.
RTP G6	Encourage land use and growth patterns that complement our transportation investments and improves the cost-effectiveness of expenditures.	<u>Consistent.</u> The Specific Plan is an infill project that continues existing land development patterns within the City of Banning and in the Pass region. As such, it complements existing transportation investments by utilizing existing transportation infrastructure including local arterials and freeways to provide access, improving the cost-effectiveness of infrastructure expenditures. Therefore, the Specific Plan would not conflict with this policy.
RTP G7	Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	<u>Consistent.</u> The Specific Plan has coordinated its circulation and land use planning with infrastructure and emergency service providers, has sized its streets to accommodate emergency vehicles, located a fire station site within the Specific Plan boundaries, proposed a location for a public Community Center, includes provision to two school sites and has coordinated closely with the police and fire departments on the placement of public facilities and the design of defensible space within the project. Therefore, the Specific Plan would not conflict with this policy.
COMPASS GROWTH VISIONING		
Principle 1: Improve mobility for all residents.		
GV P1.1	Encourage transportation investments and land use decisions that are mutually supportive.	<u>Consistent.</u> The Specific Plan is an amendment and restatement of an existing approved development project that has been incorporated into City and regional planning documents since the 1980's. The project is a known quantity and its future development has influenced transportation and land use development on a local and regional basis such that its ultimate development would support investments already made or pending in public infrastructure, utilities, schools and other services. Therefore, the Specific Plan would not conflict with this policy..
GV P1.2	Locate new housing near existing jobs and new jobs near existing housing.	<u>Consistent.</u> The proposed Specific Plan is a mixed use development that incorporates residential, commercial, recreational, educational uses. As an infill project, the Specific Plan will place housing in proximity to existing and planned employment opportunities. Therefore the Specific Plan would not conflict with this policy.

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4.10 LAND USE AND PLANNING

Table 4.10-2 (continued)
SCAG Goals and Principles Consistency Analysis

Goals/Principles		Consistency Statement
GV P1.3	Encourage transit-oriented development.	<u>Consistent.</u> The proposed Specific Plan incorporates transit oriented development. It is located adjacent to local arterials and bus routes and within 0.5 mile of the I-10. Accordingly, the Specific Plan would not conflict with this policy.
GV P1.4	Promote a variety of travel choices.	<u>Consistent.</u> The Specific Plan incorporates streets for vehicular traffic, striped lanes for bicycle and LSV use, pedestrian sidewalks and paseos the provide linkages between neighborhoods and uses. Together with availability of transit due to its location, the project provides for a variety of travel choices and modes of transit. Therefore, the Specific Plan would not conflict with this policy.
Principle 2: Foster livability in all communities.		
GV P2.1	Promote infill development and redevelopment to revitalize existing communities.	<u>Not Applicable.</u> The proposed Specific Plan is new development but it is located in an "infill site" surrounded by existing development and consistent with planned expansion of the City. Accordingly, the Specific Plan would not conflict with this policy.
GV P2.2	Promote developments, which provide a mix of uses.	<u>Consistent.</u> The proposed Specific Plan includes a mix of land uses including residential, commercial, recreational, educational and public uses. Accordingly, the Specific Plan would not conflict with this policy.
GV P2.3	Promote "people scaled," walkable communities.	<u>Consistent.</u> The proposed Butterfield Specific Plan Project includes a pedestrian oriented network of paseos and trails that will provide connectivity between all proposed land uses within the Butterfield Specific Plan area. Therefore the Specific Plan would not conflict with this policy.
GV P2.4	Support the preservation of stable, single-family neighborhoods.	<u>Consistent.</u> The Specific Plan includes residential uses that are compatible with existing adjacent single family and multifamily residential neighborhoods and uses. Therefore, the Specific Plan will not conflict with this policy.
Principle 3: Enable prosperity for all people.		
GV P3.1	Provide, in each community, a variety of housing types to meet the housing needs of all income levels.	<u>Consistent.</u> The Butterfield Specific Plan Project proposes a total of 5,387 dwelling units that would be developed within low, medium, and high densities and would meet the housing needs of all income levels. Therefore, the Specific Plan would not conflict with this policy.
GV P3.2	Support educational opportunities that promote balanced growth.	<u>Consistent.</u> The Specific Plan provides two 11-acre elementary school sites to support educational opportunities that promote balanced growth. Therefore, the Specific Plan would not conflict with this policy.

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4.10 LAND USE AND PLANNING

Table 4.10-2 (continued)
SCAG Goals and Principles Consistency Analysis

Goals/Principles		Consistency Statement
GV P3.3	Ensure environmental justice regardless of race, ethnicity, or income class.	<u>Consistent.</u> The Butterfield Specific Plan Project would provide housing opportunities for a range of income levels and would conform to existing fair housing laws. Therefore, the Specific Plan would not conflict with this policy.
GV P3.4	Support local and state fiscal policies that encourage balanced growth.	<u>Consistent.</u> The proposed Butterfield Specific Plan Project would support local and State fiscal policies that encourage balanced growth, including ensuring growth is managed and the fiscal implications of land use decisions are considered, as well as coordination with regional agencies to ensure local issues are addressed at the regional level; Therefore, the Specific Plan would not conflict with this policy.
GV P3.5	Encourage civic engagement.	<u>Consistent.</u> The Butterfield Specific Plan Project will encourage businesses and property owners, community members, and organizations to engage in civic activities through the Specific Plan approval process. Therefore, the Specific Plan would not conflict with this policy.
Principle 4: Promote sustainability for future generations.		
GV P4.1	Preserve rural, agricultural, recreational, and environmentally sensitive areas.	<u>Consistent.</u> There are no rural, agricultural, or environmentally sensitive areas located within the Butterfield Specific Plan Project site. Therefore, the Specific Plan would not conflict with this policy.
GV P4.2	Focus development in urban centers and existing cities.	<u>Consistent.</u> The proposed Specific Plan is located within the City limits of the City of Banning adjacent to the City limits of the City of Beaumont and is bounded by existing development on three sides. The project is the natural extension of existing development and utilizes existing infrastructure, including the existing circulation system. Therefore, the proposed Specific Plan does not conflict with this policy.
GV P4.3	Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution, and significantly reduce waste.	<u>Consistent.</u> The Specific Plan is designed to accommodate the growth of the City of Banning as planned in its General Plan and will utilize resources efficiently in conformance with the provisions of the 2010 California Green Building Standards Code, the provisions of the City of Banning Municipal Code and in conformance with the mitigation measures proposed in this EIR to reduce pollution and waste. Therefore, the Specific Plan would not conflict with this policy.
GV P4.4	Utilize "green" development techniques.	<u>Consistent.</u> The Specific Plan would be constructed in conformance with the 2010 California Green Building Standards Code, adopted by the City of Banning in January 2011. Therefore, the Specific Plan would not conflict with this policy.

Impact 4.10-3: Conflict with Any Applicable Habitat Conservation Plan or Natural Community Conservation Plan

Threshold: *Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?*

Determination: Less than Significant with Mitigation Incorporated

The Butterfield Specific Plan Project is located in the City of Banning, with is signatory to the Western Riverside County Multiple Species Conservation Plan (MSHCP). The site is not located in a criteria cell and does not contain critical habitat for any species the MSHCP includes requirements for the protection of *Riparian/Riverine Areas and Vernal Pools* (MSHCP Section 6.1.2) and *Narrow Endemic Species* (MSHCP Section 6.1.3). In addition, the MSCHP includes *Urban/Wildlands Interface Guidelines* (MSCHP Section 6.1.4). An MSHCP Consistency Analysis is required for all discretionary projects within jurisdictions of MSHCP co-permittees such as the City of Banning. More detail regarding compliance requirements is contained in Section 4.4, *Biological Resources*, of this EIR and in Appendix C1, *Biological Resources Assessment*. Compliance with the MSHCP requirements and with the mitigation measures contained in Section 4.4 and the requirements of jurisdictional permits required for the proposed disturbance of a minor amount of existing riparian habitat will assure consistency with applicable conservation plans and therefore the impact would be less than significant.

4.10.5 CUMULATIVE IMPACTS

Determination: Less than Significant

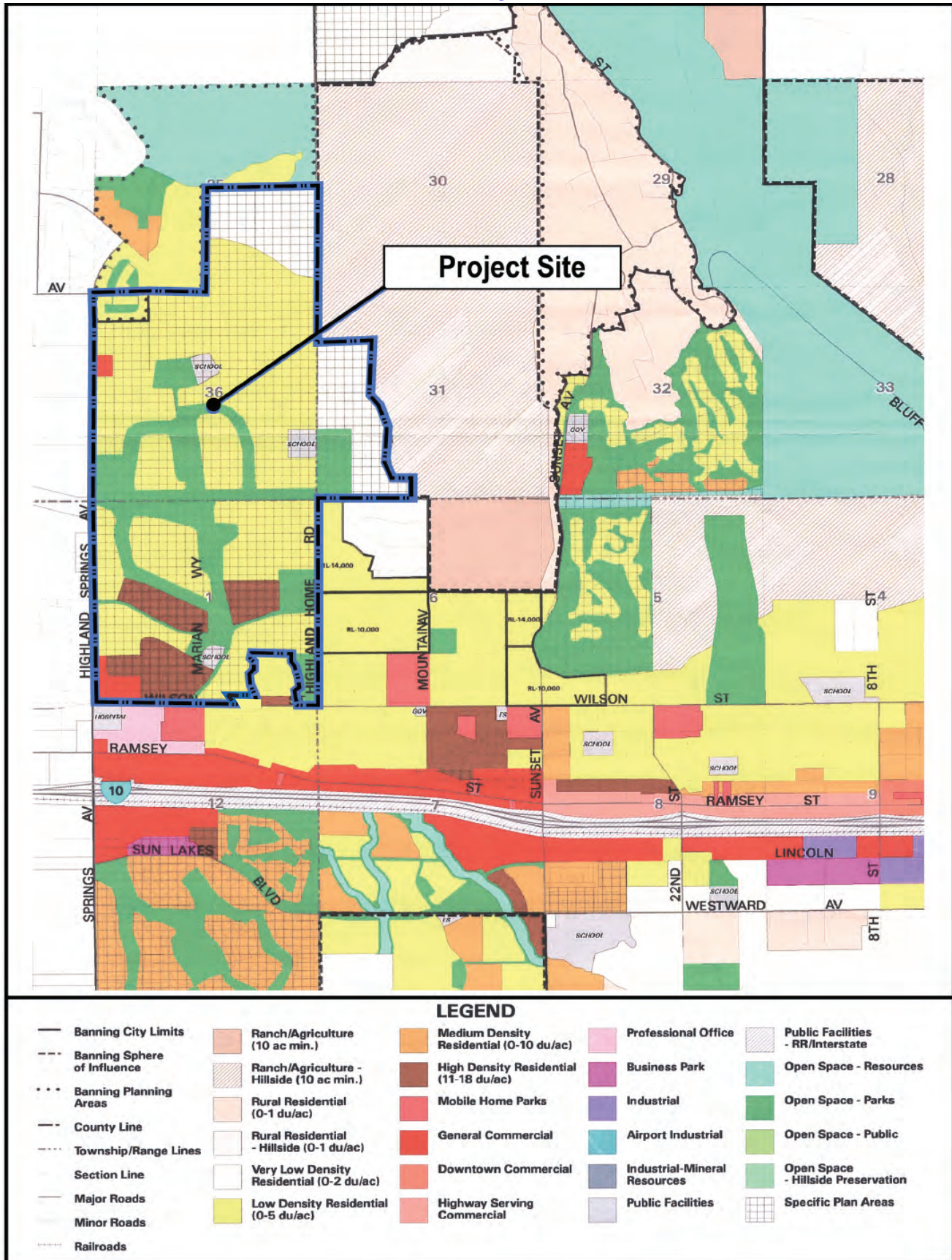
It is anticipated that future development within the City would result in changes to the existing land use environment through the conversion of vacant land to developed uses, or through conversions of existing land uses (e.g., from residential to commercial). Development pursuant to the proposed Specific Plan would not conflict with the designated land uses in the General Plan and Zoning Code. With adoption of the proposed General Plan Amendment, the proposed Specific Plan would be compatible with the land uses that surround the proposed Project.

Future development in this portion of the City would also be reviewed for consistency with adopted land use plans and policies by the City, in accordance with the requirements of CEQA, the California Zoning and Planning Law and the *California Subdivision Map Act*, all of which require findings of plan and policy consistency prior to approval of entitlements for development. It should be noted that future projects could include General Plan amendments and/or zone changes. However, each proposed amendment or zone change would require specific consistency analysis and, up adoption, would not conflict with the General Plan or City Code. For this reason, the cumulative impact associated with conflict of future development

with adopted plans and policies would be less than significant. In addition, as noted, development of the proposed Specific Plan would be compatible with surrounding land uses and would not conflict with applicable plans or policies. Therefore, the cumulative impact of the proposed Project with respect to future development would not be cumulatively considerable and is, therefore, less than significant.

4.10.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the proposed Project would result in less than significant impacts involving potential conflicts with the Banning General Plan and Development Code.



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 2.2)
City of Banning General Plan Exhibit VI-2, March 16, 2006



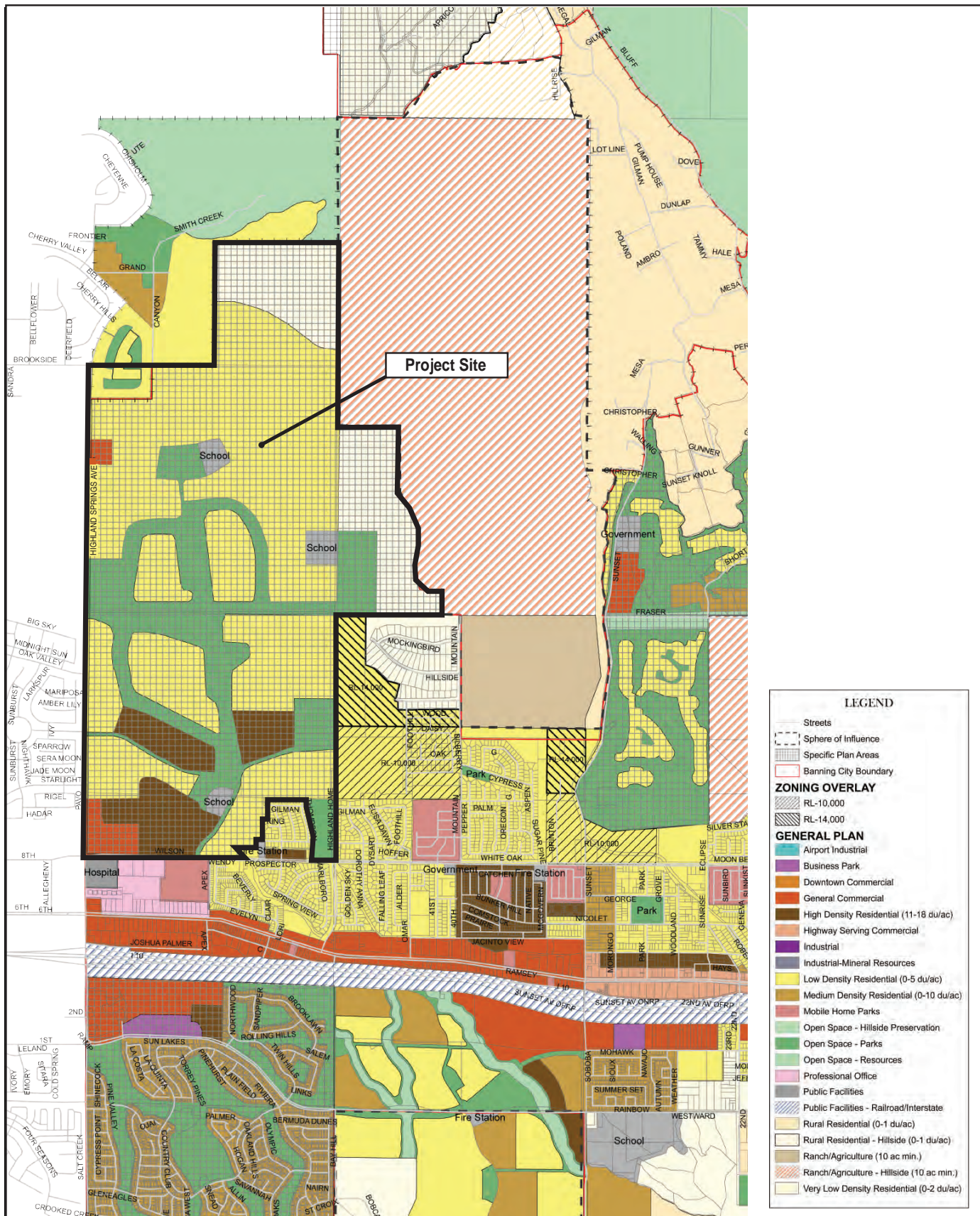
5/27/11 JN: 65-100290

Existing City of Banning General Plan Land Use Designations

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

AR 004030
EXHIBIT 4.10-1

AR000634



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 2.3)

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

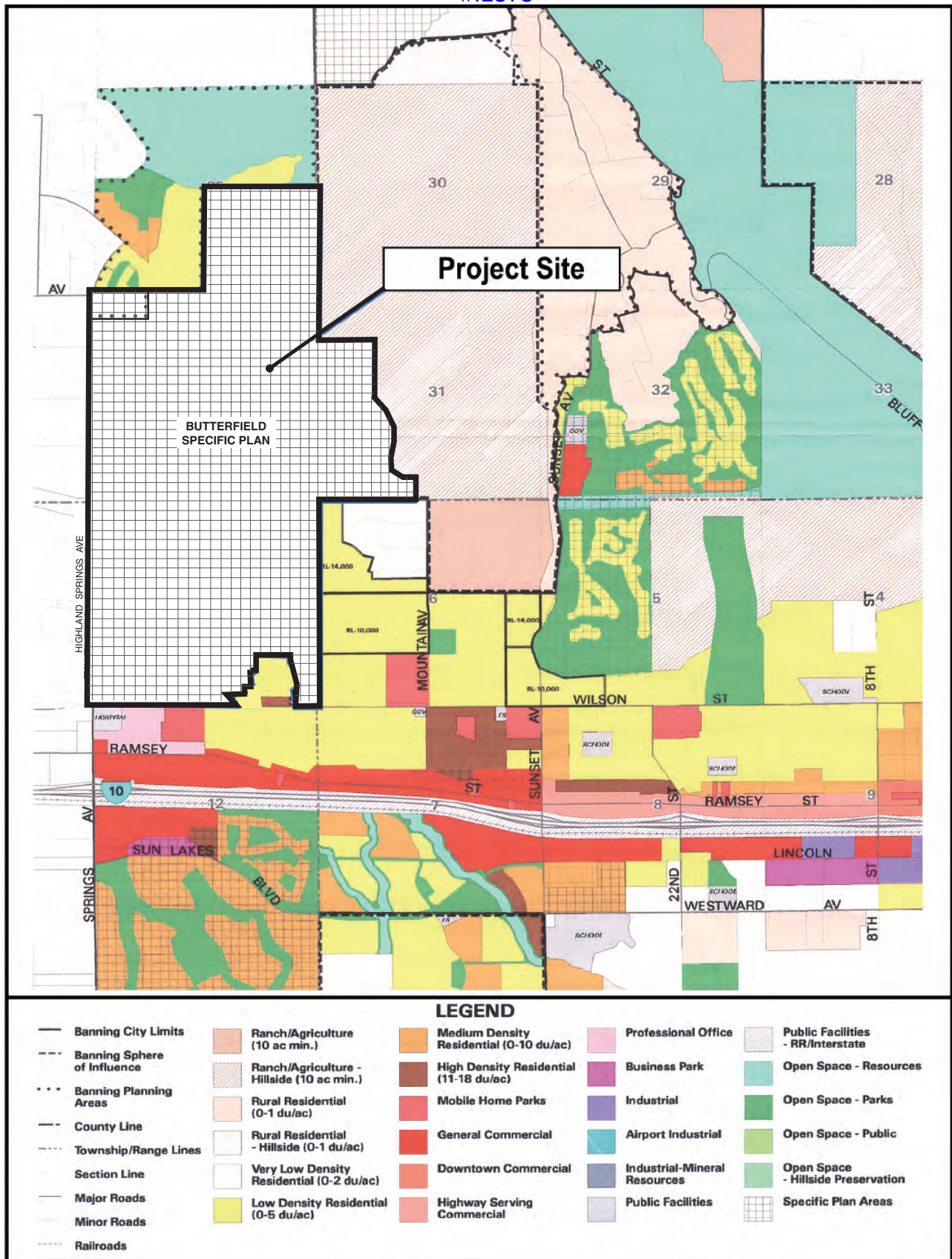
Existing City of Banning Zoning

AR 004031
EXHIBIT 4.10-2

NOT TO SCALE

5/27/11 JN: 65-100290

AR000635



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 2.2)
City of Banning General Plan Exhibit III-2, March 16, 2006

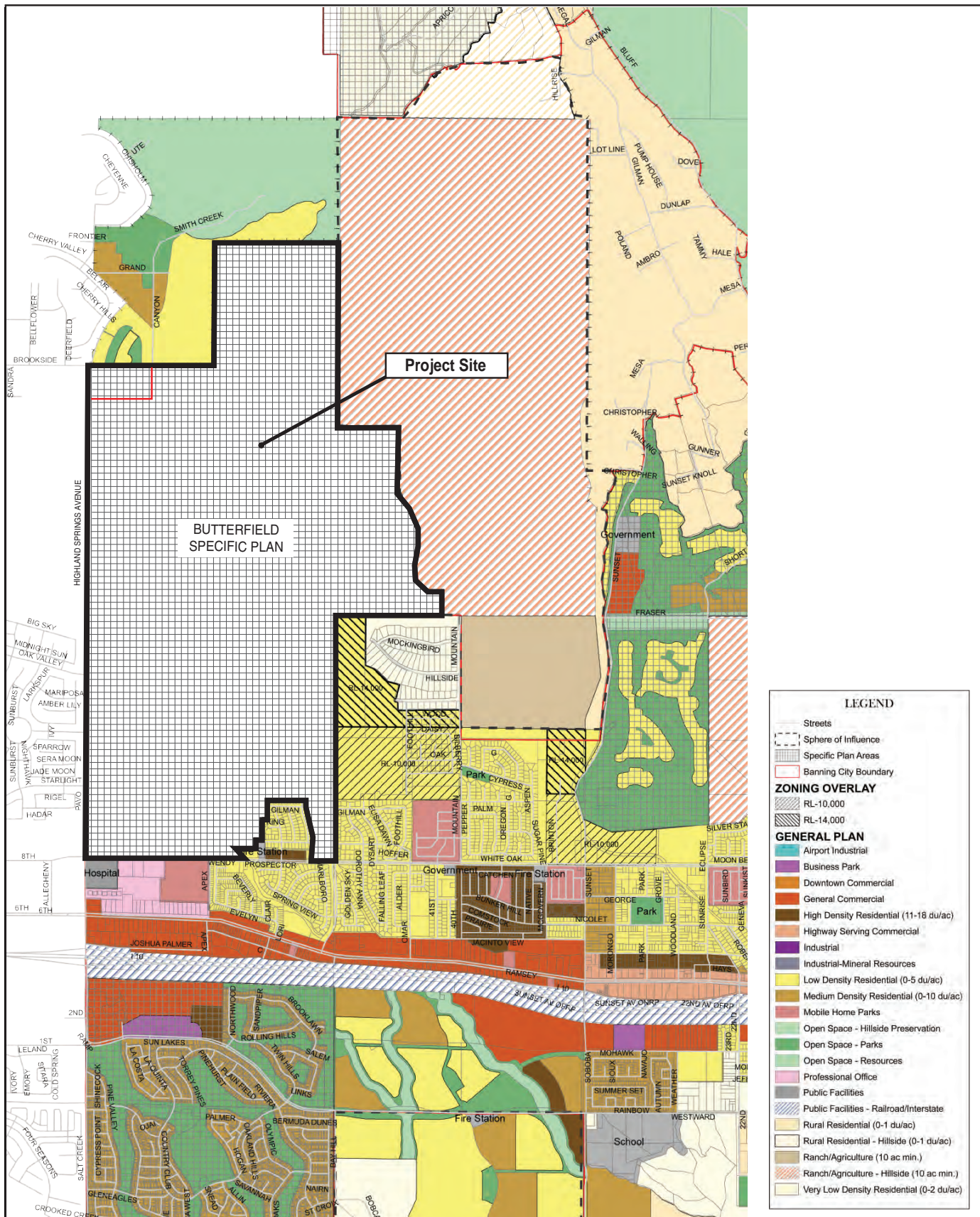
PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR



Proposed Amended City of Banning General Plan Designation

AR 004032
EXHIBIT 4.10-3

AR000636



SOURCE: RBF Consulting, Butterfield Specific Plan, May 25, 2011 (Exhibit 2.3)
City of Banning Zoning Map, October 7, 2008



NOT TO SCALE

5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR

Proposed Amended City of Banning Zoning

AR 004033
EXHIBIT 4.10-4

AR000637

SECTION 4.11

NOISE

4.11.1 INTRODUCTION

The purpose of this section is to analyze project-related noise source impacts on-site and to surrounding land uses. This section evaluates short-term construction-related impacts, as well as future buildout conditions. Mitigation measures are also recommended to avoid or lessen the project's noise impacts. Information presented in this section is based upon the *City of Banning General Plan* (January 2006), the *City of Banning Municipal Code* (codified through January 2010), the *Butterfield Specific Plan Traffic Impact Analysis* (September 15, 2010), prepared by LSA Associates, and the *Butterfield Specific Plan* (August 2010), prepared by RBF Consulting.

Definitions

Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The **A-weighted decibel scale (dBA)** performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Exhibit 4.11-1, *Sound Levels and Human Response*.

Numerous methods have been developed to measure sound over a period of time; refer to Table 4.11-1, *Noise Descriptors*.

**Table 4.11-1
Noise Descriptors**

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (L_{max})	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (L_{min})	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 PM to 10:00 PM, and +10 dBA for the night, 10:00 PM to 7:00 AM
Day/Night Average (L_{dn})	The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq} . The L_{dn} is calculated by averaging the L_{eq} 's for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 PM to 7:00 AM), by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
Exceedance Level (L_n)	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% (L_{01} , L_{10} , L_{50} , L_{90} , respectively) of the time during the measurement period.
Source: Cyril M. Harris, <i>Handbook of Noise Control</i> , dated 1979.	

Health Effects of Noise

Human response to sound is highly individualized. Annoyance is the most common issue regarding community noise. The percentage of people claiming to be annoyed by noise generally increases with the environmental sound level. However, many factors also influence people's response to noise. The factors can include the character of the noise, the variability of the sound level, the presence of tones or impulses, and the time of day of the occurrence. Additionally, non-acoustical factors, such as the person's opinion of the noise source, the ability to adapt to the noise, the attitude towards the source and those associated with it, and the predictability of the noise, all influence people's response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses will range from "not annoyed" to "highly annoyed."

When the noise level of an activity rises above 70 dBA, the chance of receiving a complaint is possible, and as the noise level rises, dissatisfaction among the public steadily increases. However, an individual's reaction to a particular noise depends on many factors, such as the source of the sound, its loudness relative to the background noise, and the time of day. The reaction to noise can also be highly subjective; the perceived effect of a particular noise can vary widely among individuals in a community.

The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories:

- Noise-Induced Hearing Loss
- Interference with Communication
- Effects of Noise on Sleep
- Effects on Performance and Behavior
- Extra-Auditory Health Effects
- Annoyance

Although it often causes discomfort and sometimes pain, noise-induced hearing loss usually takes years to develop. Noise-induced hearing loss can impair the quality of life through a reduction in the ability to hear important sounds and to communicate with family and friends. Hearing loss is one of the most obvious and easily quantified effects of excessive exposure to noise. While the loss may be temporary at first, it could become permanent after continued exposure. When combined with hearing loss associated with aging, the amount of hearing loss directly caused by the environment is difficult to quantify. Although the major cause of noise-induced hearing loss is occupational, substantial damage can be caused by non-occupational sources.

According to the United States Public Health Service, nearly ten million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure. Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. It can also disrupt effective communication between teachers and pupils in schools, and can cause fatigue and vocal strain in those who need to communicate in spite of the noise.

Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition, and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long periods. Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high and the task sufficiently complex for effects on performance to occur.

Recent research indicates that more moderate noise levels can produce disruptive after-effects, commonly manifested as a reduced tolerance for frustration, increased anxiety, decreased incidence of "helping" behavior, and increased incidence of "hostile" behavior. Noise has been implicated in the development or exacerbation of a variety of health problems, ranging from hypertension to psychosis. As with other categories, quantifying these effects is difficult due to the amount of variables that need to be considered in each situation. As a biological stressor, noise can influence the entire physiological system. Most effects seem to be transitory, but with continued exposure some effects have been shown to be chronic in laboratory animals.

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one's peace of mind and the enjoyment of one's environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the United States Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community is highly annoyed. When levels exceed 65 dBA CNEL, that percentage rises to 15 percent. Although evidence for the various effects of noise have differing levels of certainty, it is clear that noise can affect human health. Most of the effects are, to a varying degree, stress related.

Sensitive Receptors

Human response to noise varies widely depending on the type of noise, time of day, and sensitivity of the receptor. The effects of noise on humans can range from temporary or permanent hearing loss to mild stress and annoyance due to such things as speech interference and sleep deprivation. Prolonged stress, regardless of the cause, is known to contribute to a variety of health disorders. Noise, or the lack thereof, is a factor in the aesthetic perception of some settings, particularly those with religious or cultural significance. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, hotels, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours.

4.11.2 EXISTING CONDITIONS

4.11.2.1 ENVIRONMENTAL SETTING

The Project area encompasses approximately 1,543 acres of vacant or undeveloped land. The closest sensitive receptors within the area are single-family residential homes, mobile homes, and apartment complexes bordering the Project site to the northwest, south, east, and west. Also within proximity of the Project site are hotels, schools, churches, hospitals, and golf courses (one located to the northwest of the project site and one located to the south of the project site, south on Interstate 10). Within the Project site, the Specific Plan is proposing the following sensitive land uses: residential dwelling units, schools, open space, and a golf course. Sensitive receptors can be seen below in Table 4.11-2, *Sensitive Receptors*. The distances are measured from the exterior Project boundary only, and not from individual construction projects/areas/phases within the interior of the Project site.

Ambient Noise Measurements

Obtaining ambient noise measurements provide a baseline for existing noise conditions used to compare existing noise conditions to predicted noise conditions with implementation of a project. In addition, noise measurements also provided information on existing conditions to determine if any existing noise levels in an area exceed applicable noise level criteria. Lastly, existing noise conditions provide measurable data related noise generated by different land uses.

In order to quantify existing ambient noise levels in the Project area, RBF Consulting conducted noise measurements on November 7, 2007; refer to Table 4.11-3, *Noise Measurements*. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the Project site; refer to Exhibit 4.11-2, *Noise Measurement Locations*. Ten-minute measurements were taken at each site, between 10:00 AM and 1:00 PM. Meteorological conditions were clear skies, warm, with moderate to high wind speeds (0 to 18

miles per hour), and low humidity. As indicated in Table 4.11-3, ambient noise levels range from 44.5 dBA to 62.0 dBA. These noise levels indicate that existing noise levels in the area are typical of residential uses. The highest noise levels (i.e., 62.0 dBA) occurred near two roadways, and traffic noise contributed to the higher ambient noise levels.

Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute for Type I (precision) sound level meters. The results of the field measurements are indicated in Appendix H, *Noise Data*.

Table 4.11-2
Sensitive Receptors

Type	Name	Distance from Project Site (feet) ¹	Direction from Project Site
Residential	Linda Vista Mobile Home Park	54	South
	Single-Family Residential	87	South
	Single-Family Residential	105	East
	Sundance Community Single-Family Residential Uses	175	West
	Mix of Single-Family Residential and Apartment Complexes	418	Southeast
	Highland Springs Country Club/Century Homes Project	808	Northwest
Hotels/Motels	Hampton Inn & Suites	1,740	South
	Highland Springs Resort	1,880	West
Schools	Pass Christian Pre-School	96	South
	Sundance Elementary School	2,030	West
Churches	First Assembly of God	96	South
	Highland Springs Fellowship	96	South
	Church of Jesus Christ of Latter Day Saints	170	South
	Fountain of Life Church	2,400	East
	Mountain Avenue Baptist Church	2,420	East
Hospitals	Cherry Valley Health Care	150	South
	San Gorgonio Memorial Hospital	290	South
Note:			
1 – Distances are measured from the exterior Project boundary.			
Source: Google Earth 2010.			

Table 4.11-3
Noise Measurements

Site No.	Location	Leq (dBA)	Time
1	Wilson and Highland Springs.	53.1	10:40 AM
2	Highland Springs Avenue and Cherry Valley Boulevard	44.5	11:00 AM
3	Oak Valley Parkway and Highland Springs Avenue; 25 feet from centerline	62.0	11:20 AM
4	Western terminus of Gilman Street	48.7	11:42 AM
5	Northern terminus of Winchester Drive	48.2	12:00 PM
Notes: RBF Consulting site visit, November 7, 2007.			

Mobile Sources

In order to assess the potential for mobile source noise impacts, it is necessary to determine the noise currently generated by vehicles traveling through the Project area. The existing roadway noise levels in the vicinity of the Project site were calculated, using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108) together with several roadway and site parameters. These parameters determine the projected impact of vehicular traffic noise and include the roadway cross-section (such as the number of lanes), roadway width, average daily traffic (ADT), vehicle travel speed, percentages of auto and truck traffic, roadway grade, angle-of-view, and site conditions ("hard" (hard surface conditions such as rocks and concrete that reflect noise) or "soft" (softer surface conditions such as landscaping that absorb noise)). The model does not account for ambient noise levels (i.e., noise from adjacent land uses) or topographical differences between the roadway and adjacent land uses. Noise projections are based on modeled vehicular traffic as derived from traffic information dated September 15, 2010, prepared by LSA Associates.

A 35-mile per hour (mph) average vehicle speed was assumed for existing conditions based on empirical observations and posted maximum speeds along the adjacent roadways. The ADT estimates were obtained from data included in the *Butterfield Specific Plan Traffic Impact Analysis*, prepared by LSA Associates on September 15, 2010.

Existing modeled traffic noise levels are depicted in Table 4.11-4, *Existing Traffic Noise Levels*. As shown in Table 4.11-4, noise within the Project area due to traffic noise ranges from 50.9 dBA to 63.0 dBA, with the highest levels occurring on Highland Springs Avenue between 8th Street and 6th Street.

Stationary Noise Sources

The Project site and surrounding area consists of a mix of residential, hotel/motel, commercial/retail, office, school, church, and hospital uses served by a grid system of arterial and collector streets. The primary sources of stationary noise in the Project vicinity are urban-related activities and noises (e.g., delivery truck loading and unloading, truck movements on driveways, mechanical equipment (such as trash compactors and air conditioning units) gardening equipment, trash pick-up (noise from trash pickup and compacting results from the use of hydraulic equipment to raise and lower the metal trash bins and to compact their contents) , conversations, recreational uses, and parking lot activities). The noise associated with these sources may represent a single-event or a continuous occurrence.

**Table 4.11-4
Existing Traffic Noise Levels**

Roadway Segment	Existing Conditions				
	ADT	CNEL @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
Oak Valley Parkway					
Between I-10 Westbound Ramps and Elm Avenue	8,355	61.0	144	46	14
Between Elm Avenue and Beaumont Avenue	7,825	60.7	135	43	13
Between Beaumont Avenue and Palm Avenue	8,015	60.9	138	44	14
Between Palm Avenue and Pennsylvania Avenue	6,980	60.2	120	38	12
Between Pennsylvania Avenue and Cherry Avenue	6,465	59.8	112	35	11
Between Cherry Avenue and Orchard Heights Avenue	5,720	59.3	99	31	10
Between Orchard Heights Avenue and Highland Springs Avenue	3,900	57.6	67	21	7
8 th Street					
Between Beaumont Avenue and Palm Avenue	1,965	54.11	34	11	3
Between Palm Avenue and Pennsylvania Avenue	2,100	55.2	36	11	4
Between Pennsylvania Avenue and Highland Springs Avenue	3,320	57.1	57	18	6
Wilson Street					
Between Highland Springs Avenue and C Street	5,465	61.8	170	54	17
Between C. Street and Highland Home Road	6,360	62.5	198	63	20
Between Highland Home Road and Sunset Avenue	5,615	61.7	175	55	17
Between Sunset Avenue and Sunrise Avenue	4,510	61.2	140	44	14
Between Sunrise Avenue and 16 th Street	3,865	60.2	120	38	12
Between 16 th Street and 8 th Street	3,410	59.7	106	33	11
Between 8 th Street and 4 th Street	2,980	59.1	93	29	9
Between 4 th Street and San Gorgonio Avenue	2,730	59.0	85	27	8

Table 4.11-4 (continued)
Existing Traffic Noise Levels

Roadway Segment	Existing Conditions				
	ADT	CNEL @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
Ramsey Street					
Between Highland Springs Ave and Highland Home Rd	9,385	61.2	162	51	16
Beaumont Avenue					
Between Oak Valley Parkway and 8 th Street	8,180	60.9	141	45	14
Palm Avenue					
Between Oak Valley Parkway and 8 th Street	2,075	54.7	36	11	4
Pennsylvania Avenue					
Between Oak Valley Parkway and 8 th Street	4,295	58.3	74	23	7
Highland Springs Avenue					
Between Brookside Avenue and Oak Valley Parkway	4,510	63.3	232	73	23
Between Oak Valley Parkway and Starlight Avenue	8,130	65.7	418	132	42
Between Starlight Avenue and 8 th Street	11,095	67.1	571	180	57
Between 8 th Street and 6 th Street	13,295	61.6	164	52	16
Highland Home Road					
Between Wilson Street and Ramsey Street	840	47.9	7	2	1
Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level.					
Source: Roadways segments information obtained from LSA Associates, <i>Butterfield Specific Plan Traffic Impact Analysis</i> , September 15, 2010. Noise levels and contour data determined by RBF Consulting.					

4.11.2.2 REGULATORY SETTING

Many government agencies have established noise standards and guidelines to protect citizens from various adverse physiological and social effects associated with noise. Standards and guidelines applicable to this project are discussed below.

California Government Code Section 65302(f)

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of their comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services.

State of California OPR Noise Element Guidelines

The State of California Office of Planning and Research (OPR) *Noise Element Guidelines* include recommended interior and exterior standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The *OPR Guidelines* describe the compatibility of various land uses with a range of environmental noise levels in terms of dBA CNEL.

A noise environment of 50 dBA CNEL to 60 dBA CNEL is considered to be “normally acceptable” for residential uses. The State indicates that locating residential units, parks, and institutions (i.e., churches, schools, libraries, and hospitals) in areas where exterior ambient noise levels exceed 65 dBA CNEL is undesirable. The OPR recommendations also note that, under certain conditions, more restrictive standards than the maximum levels cited may be appropriate. As an example, the standards for quiet suburban and rural communities may be reduced by 5 to 10 dB to reflect their lower existing outdoor noise levels in comparison with urban environments.

Table 4.11-5, *Noise and Land Use Compatibility Matrix*, illustrates the State guidelines established by the State Department of Health Services for acceptable noise levels for each county and city. These standards and criteria are incorporated into the land use planning process to reduce future noise and land use incompatibilities. This table is the primary tool that allows the City to ensure integrated planning for compatibility between land uses and outdoor noise.

The guidelines rank noise land use compatibility in terms of “normally acceptable”, “conditionally acceptable”, “normally unacceptable”, and “clearly unacceptable” noise levels for various land use types. Single-family homes are “normally acceptable” in exterior noise environments up to 60 CNEL and “conditionally acceptable” up to 70 CNEL. Multiple-family residential uses are “normally acceptable” up to 65 CNEL and “conditionally acceptable” up to 70 CNEL. Schools, libraries, and churches are “normally acceptable” up to 70 CNEL, as are office buildings and business, commercial, and professional uses.

Table 4.11-5
Noise and Land Use Compatibility Matrix

Land Use Category	Community Noise Exposure (L _{dn} or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential - Low Density, Single-Family, Duplex, Mobile Homes	50 - 60	55 - 70	70-75	75-85
Residential - Multiple Family	50 - 65	60 - 70	70 - 75	70 - 85
Transient Lodging - Motel, Hotels	50 - 65	60 - 70	70 - 80	80 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	80 - 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 - 70	NA	65 - 85
Sports Arenas, Outdoor Spectator Sports	NA	50 - 75	NA	70 - 85
Playgrounds, Neighborhood Parks	50 - 70	NA	67.5 - 75	72.5 - 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 70	NA	70 - 80	80 - 85
Office Buildings, Business Commercial and Professional	50 - 70	67.5 - 77.5	75 - 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	75 - 85	NA
NA: Not Applicable				
Source: Office of Planning and Research, California, <i>General Plan Guidelines</i> , October 2003.				
<p>Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.</p> <p>Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.</p> <p>Normally Unacceptable – New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.</p> <p>Clearly Unacceptable – New construction or development should generally not be undertaken.</p>				

California Code of Regulations Title 25, Section 1092

Title 25, Section 1092 of the *California Code of Regulations*, sets forth requirements for the insulation of multiple-family residential dwelling units from excessive and potentially harmful noise. Whenever multiple-family residential dwelling units are proposed in areas with excessive noise exposure, the developer must incorporate features into the building's design that reduce interior noise levels to a maximum of 45 dBA CNEL.

City of Banning General Plan Noise Element

The Noise Element of the *General Plan* is intended to coordinate the community's land uses with the existing and future noise environment. Further, this element provides for design measures that are intended to minimize or avoid community exposure to excessive noise levels. The potential for land use conflicts that can result in an unacceptable noise environment increase as the City grows. The implementation of policies and programs set forth in the Noise Element can greatly reduce or even avoid current and future noise impacts and land use conflicts.

The Noise Element includes the following Goals and Policies:

- Goal: A noise environment that complements the community's residential character and its land uses.
 - Policy 1: The City shall protect noise sensitive land uses, including residential neighborhoods, schools, hospitals, libraries, churches, resorts and community open space, from potentially significant sources of community noise.
 - Policy 2: The relationship between land use designations in the Land Use Element and changes in the circulation pattern of the City, as well as individual developments, shall be monitored and mitigated.
 - Policy 3: Private sector project proposals shall include measures that assure that noise exposure levels comply with State of California noise insulation standards as defined in Title 25 (California Noise Insulation Standards) and/or Banning Ordinances 1138 and 1234, whichever is more restrictive.
 - Policy 4: The City shall maintain a General Plan Circulation Map and assure low levels of traffic within neighborhoods by assigning truck routes to major roadways only.
 - Policy 5: The City shall ensure that flight paths and airport improvements adhere to all local, state and federal noise regulations.
 - Policy 6: All development proposals within the noise impact area of the Interstate and the railroad shall mitigate both noise levels and vibration to acceptable levels through the preparation of focused studies and analysis in the development review and environmental review process.
 - Policy 7: The City shall coordinate with adjoining jurisdictions to assure noise-compatible land uses across jurisdictional boundaries.

- Policy 8: The City shall impose and integrate special design features into proposed development that minimize impacts associated with the operation of air conditioning and heating equipment, on-site traffic, and use of parking, loading and trash storage facilities.
- Policy 9: The City shall support development that results in grade separated railroad tracks.

According to Chapter V, *Environmental Hazards*, page V-49 of the Noise Element of the *General Plan*, the applicable one-hour average limit for outdoor noise levels in residential areas is 55 dBA during daytime hours, and 45 dBA during evening and nighttime areas. These noise impacts are characteristically “unmitigated” and represent the worst-case noise impact without any obstruction or attenuation of the noise.

City of Banning Noise Ordinance

As stated in Chapter V, *Environmental Hazards*, page V-51 of the Noise Element of the *General Plan*, the City of Banning Noise Ordinance, *Title 8 (Health and Safety), Chapter 8.44 (Noise)*, is designed to establish criteria and standards for the regulation of noise levels within the City and to implement the noise provision contained in the City’s General Plan. All ambient noise measurements shall commence at the base ambient noise levels in decibels within the respective times and zones as presented in Table 4.11-6, *Base Ambient Noise Levels*.

Table 4.11-6
Base Ambient Noise Levels

Decibels	Time	Zone Use
45 dB(A)	10:00 P.M. – 7:00 A.M.	Residential
55 dB(A)	7:00 A.M. – 10:00 P.M.	Residential
75 dB(A)	Anytime	Industrial and Commercial
Source: City of Banning, Title 8 (<i>Health and Safety</i>), Chapter 8.44 (<i>Noise</i>), Section 8.44.050 (<i>Base Ambient Noise Level</i>) of the <i>Municipal Code</i> .		

Section 8.44.090.E (Noise Prohibited – Unnecessary Noise Standard – Construction, Landscape Maintenance or Repair) addresses the following provision:

E. Construction, landscape maintenance or repair.

1. *It shall be unlawful for any person to engage in or permit the generation of noise related to landscape maintenance, construction including erection, excavation, demolition, alteration or repair of any structure or improvement, at such sound levels, as measured at the property*

*line of the nearest adjacent occupied property, as to be in excess of the sound levels permitted under this chapter, at **other times than between the hours of 7:00 A.M. and 6:00 P.M.** The person engaged in such activity is hereby permitted to exceed sound levels otherwise set forth in this chapter for the duration of the activity during the above described hours for purposes of construction. However, nothing contained herein shall permit any person to **cause sound levels to at any time exceed fifty-five dB(A) for intervals of more than fifteen minutes per hour** as measured in the interior of the nearest occupied residence or school.*

2. *Construction related noise as defined in subsection (E)(1) immediately above, may take place outside the time period set forth in subsection (E)(1) and above the relative sound levels in case of urgent necessity in the interest of public health and safety, and then only with the prior permission of the building inspector. Such permit may be granted for a period not to exceed three days or until the emergency ends, whichever is less. The permit may be renewed for periods of three days while the emergency continues.*
3. *If the building official should determine that the public health and safety will not be impaired by the construction related noise, the building inspector may issue a permit for construction within the hours of 6:00 P.M. and 7:00 A.M., upon application being made at the time the permit for the work is awarded or during the progress of the work. The building official may place such conditions on the issuance of the permit as to him or her shall seem appropriate to maintain the public health and safety.*

4.11.3 SIGNIFICANCE THRESHOLD CRITERIA

CEQA Thresholds

Appendix G, of the *CEQA Guidelines* contains analysis guidelines related to the assessment of noise impacts. These guidelines have been utilized as thresholds of significance for this analysis. As stated in Appendix G, a project would create a significant environmental impact if it would:

- a) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- b) Expose persons to or generate excessive ground borne vibration or ground borne noise levels;
- c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

- d) Expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels; *Effects Found Not To Be Significant*
- f) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels. *Effects Found Not To Be Significant*

The proposed Project is located over two miles from the Banning Airport, is not located within any of the airport's CNEL contours and is outside of the Airport Land Use Plan boundary. Accordingly, there are no impacts associated with airport operations and the thresholds will not be addressed in this analysis.

Significance of Changes in Traffic Noise Levels

If the ambient noise environment is quiet and the new noise source substantially increases the noise exposure, a significant impact could occur, even though a criterion level might not be exceeded. Based on data from the Federal Interagency Committee on Noise (FICON) the following criteria are used to determine if the Project would create a potentially significant impact for traffic noise levels:

- An increase of the existing ambient noise levels by 5 dB or more, where the ambient level is less than 60 dB CNEL;
- An increase of the existing ambient noise level by 3 dB or more, where the ambient level is 60 to 65 dB CNEL; or
- An increase of the existing ambient noise level by 1.5 dB or more, where the ambient level is greater than 65 dB CNEL.

The project would result in a significant noise impact when a permanent increase in ambient noise levels exceeds the criteria above and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

Significance of Changes in Cumulative Traffic Noise Levels

The Project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with Project" condition to "existing" conditions.

This comparison accounts for the traffic noise increase from the Project generated in combination with traffic generated by projects in the cumulative projects list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase and are based on data from FICON, who issued this method to assess noise impacts via the Federal Register on July 14, 2000.

Combined Effects: The cumulative with Project noise level ("Long-Term With Project") causes the following:

- An increase of the existing noise level by 5 dB or more, where the existing level is less than 60 dB CNEL;
- An increase of the existing noise level by 3 dB or more, where the existing level is 60 to 65 CNEL; or
- An increase of the existing noise level by 1.5 dB or more, where the existing level is greater than 65 dB CNEL.

Although there may be a significant noise increase due to the proposed Project in combination with other related projects (cumulative effects), it must also be demonstrated that the Project has a significant incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

Incremental Effects: The "Long-Term With Project" causes a 1 dBA increase in noise over the "Long-Term Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded and the resulting noise level exceeds the applicable exterior standard at a noise sensitive use.

4.11.4 IMPACTS AND MITIGATION MEASURES

ANALYTIC METHOD

The methodology for determining a significant impact related to noise is the same whether applied to the proposed Project on a programmatic or a project level. The primary short-term sources of noise associated with the proposed Project would be construction activities within the Specific Plan area and in connection with the construction of off-site infrastructure and Project-related traffic. Long-term noise sources would include new stationary sources (such as heating, ventilation, and air conditioning units) and increased human activity including both indoor and outdoor activities (such as conversations, recreational uses, music, parking lot

activities, traffic, and gardening) throughout the Project site. The net increase in noise generated by these activities and other sources has been quantitatively estimated and compared to applicable noise standards and thresholds of significance as part of this analysis.

Ground borne vibration would also be generated during the construction phase(s) of the proposed Project, which would include grading and excavation, infrastructure construction and vertical construction. Accordingly, ground borne vibration levels generated by construction equipment have also been quantitatively estimated and compared to applicable thresholds of significance.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES AND REQUIREMENTS

Existing local, State and federal regulations noted below will avoid or mitigate potential impacts related to noise. The following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) The Project is proposed to be developed in Phases, which include four mass grading phases and five development phases. The initial Phase IA grading would be limited to the area necessary to achieve a balanced site and proper drainage, leaving approximately 40% of the site in its natural condition until the later phases of Project development, thereby reducing the noise impacts associated with mass grading during the interim implementation phases.
- 2) The Project has been redesigned from the currently approved Deutsch Specific Plan, to retain the northern steeper slopes in natural open space. In addition, in response to initial public scoping and discussions with adjacent residents, the applicant further redesigned the Land Use Plan to create a lower residential density in Planning Area 50, and an overall higher “clustered” residential density throughout the Specific Plan area, which uses less land area for development. Furthermore, the Project has been revised to provide a greater separation between proposed development areas and existing residential areas along open space easement Planning Area 74, reducing potential noise impacts from construction and long-term uses in this area.
- 3) The Project will be constructed in compliance with all applicable provisions of Chapter 8.44 (*Noise*) of the City’s Municipal Code including, to the extent feasible, observing time limitations on construction noise that exceeds Base Ambient Noise Levels pursuant to statute.
- 4) All residential structures built on the Project site shall incorporate design measures to ensure that interior noise levels for residential development do not exceed 45 dBA, in accordance with Title 25 (California Noise Insulation Standards) and the City’s Municipal Code.

- 5) All development on the Project site shall comply with State Code requirements for unit-to-unit airborne sound isolation, both laterally and vertically, and for vertical impact sound isolation in multi-family residential construction.
- 6) During the preparation of construction drawings for project-specific development, the exact acoustical specifications for window glass in buildings with unshielded first and second floor windows shall be determined, pursuant to the requirements of Chapter V, Environmental Hazards, page V-49 of the City's General Plan and the Chapter 8.44.050 Base Ambient Noise Level of the City's Municipal Code.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.11-1: Short-Term Construction Noise Impacts

Threshold: *Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.*

Determination: *Less than Significant with Mitigation Incorporated*

The Project site would be developed in five main phases over a period of approximately 30 years, with an estimated 180 dwelling units to be developed per year on average. Appropriate levels of infrastructure and any required improvements would be provided as development proceeds.

Phase 1

In Phase 1, approximately 60 percent of the Project site would be mass-graded. The golf course and PAs 1A, 1B, 1C, 2 through 8, 17 through 19, 22 through 27, 35, 38, 39, and 71 would be developed. A detention basin would be constructed in PA 71. The Smith Creek's watercourse would be realigned through the golf course area. Drainage improvements within PA 19 would be built to safely transmit accumulated upstream and Project-originated drainage flows to the existing Smith Creek Channel culvert southeast of Butterfield, south of Wilson Street. Phase 1 would also include the installation of infrastructure needed to support the development planned for this phase, including installation of on-site and off-site water, recycled water, sewer pipelines, and dry utility lines. Project entry roadways extending from the South Loop Collector Street to the west and south would be constructed. Also, the extent of "F" Street adjacent to the golf course, as well as the Phase 1 adjacent portions of Highland Springs Avenue (south of "F" Street) and of Wilson Street would be built.

Phase 2

Phase 2 would include the development of PAs 9 through 16, 20, 21, 28 through 33, 36 and 37. The South Loop Collector's Street's eastern half would be completed incrementally. The Project entry roadways extending northward and eastward from the South Loop Street would be constructed. Also, the remaining extent of F Street from the golf course edge to Highland Home Road along with the Phase 2 adjacent portion of Highland Home Road south of F Street would be constructed.

Phase 3

Phase 3 would include the remaining PAs between Brookside Avenue, Highland Home Road, and F Street within the northwestern corner of the Project area would be developed. The areas include PAs 34, 40 through 42, 43, 44 through 49, 53 through 59, 62 through 66, and 72. The entirety of the North Loop Collector Street would be built. Phase 3 adjacent portions of Highland Springs Avenue north of F Street and Brookside Avenue and Highland Home Road, north of F Street and east of Highland Springs Avenue, would also be constructed.

Phase 4

The PAs to the east of Highland Home Road would be developed in Phase 4. The areas include PAs 50, 51, 52, and 67.

Phase 5

Within Phase 5, the PAs north of Brookside Avenue, within the northernmost extent of the Specific Plan would be developed. The areas include PAs 60 and 61.

Construction activities generally result in periodic, temporary increases in the ambient noise environment. Construction is expected to occur evenly over a 30 year period, with an estimated 180 dwelling units to be developed per year on average. For the purposes of this analysis, it is assumed that Phase 1 would be constructed between 2012 and 2015; Phase 2 would be constructed between 2016 and 2018; Phase 3 would be constructed between 2019 and 2031; Phase 4 would be constructed between 2032 and 2034; and Phase 5 would be constructed between 2035 and 2037. However, the timing and sequence of phasing will only occur as appropriate levels of infrastructure and required improvements are developed. Construction activities would consist of grading, trenching, paving, and building construction. Groundborne noise would typically occur during the initial site preparation since activities that occur during this phase include earthmoving and soils compaction. High groundborne noise levels and other miscellaneous noise levels can be created during this phase due to the operation of heavy-duty trucks, backhoes, and front-end loaders as well air compressors, hand-held power tools, and blowers. No pile-driving activities would occur during construction of the proposed project.

The anticipated short-term construction noise levels generated during grading, trenching, paving, and building construction during Phases 1 through 5 are presented in Table 4.11-7, *Maximum Phase 1 Construction Noise Levels*, Table 4.11-8, *Maximum Phase 2 Construction Noise Levels*, Table 4.11-9, *Maximum Phase 3 Construction Noise Levels*, Table 4.11-10, *Maximum Phase 4 Construction Noise Levels*, and Table 4.11-11, *Maximum Phase 5 Construction Noise Levels*. Noise models were run using the Federal Highway Administration's Roadway Construction Noise Model (FHWA-HEP-05-054). The distance is measured from the nearest off-site or on-site sensitive receptor to the closest approximate construction activity area of the Project site, using the Project's tentative tract maps and Google Earth.

Tables 4.11-7 through 4.11-11 assume a 20 dBA attenuation factor to account for the noise attenuation achieved through normal building insulation pursuant to State Code and indicated the maximum noise level for sensitive receptors without accounting for attenuation provided by mitigation measures. In many cases, Project-related noise would be further buffered from adjacent receptors by intervening topography or structures, or by adjacent streets and/or drainage channels, and off-site areas also include perimeter walls, all of which would serve to reduce the net noise impact during Project construction and operation.

The following construction-related noise impacts also apply to interim conditions where construction of future Project phases may result in temporary construction-related noise impacts to sensitive receptors in previously developed phases.

Table 4.11-7
Maximum Phase 1 Construction Noise Levels without Mitigation Measures

Description	Receptor Locations		Estimated Exterior Construction Noise Level ^{3,4}	Estimated Interior Construction Noise Level ^{3,4}
	Direction ¹	Distance ²		
Grading	Northwest	1,410	60.6	40.6
	South	54	89.0	69.0
	East	1,800	58.5	38.5
	West	175	78.7	58.7
Trenching	Northwest	1,410	58.0	38.0
	South	54	86.4	66.4
	East	1,800	55.9	35.9
	West	175	76.1	56.1
Paving	Northwest	1,410	57.3	37.3
	South	54	85.6	65.6
	East	1,800	55.1	35.1
	West	175	75.4	55.4
Building Construction	Northwest	1,410	57.9	37.9
	South	54	85.6	65.6
	East	175	55.1	35.1
	West	1,240	75.4	55.4
Notes: 1. Off-site uses to the northwest, south, east, and west are residential. 2. Distance is measured from the nearest off-site or on-site sensitive receptor to the closest approximate construction activity area for Phase 1 of the Project site. 3. Derived from the Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA-HEP-05-054)</i> , dated January 2006. Refer to Appendix H. 4. A typical building can reduce noise levels by 20 dBA with the windows closed. This assumes all windows and doors are closed, thereby attenuating the exterior noise levels by 20 dBA.				
Source: Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA – HEP – 05-054)</i> , January 2006; refer to Appendix H.				

To summarize, Phase 1 construction activities could expose adjacent receptors to interior noise levels of:

- 38.5 dBA to 69.0 dBA during the grading phase;
- 35.9 dBA to 66.4 dBA during the trenching phase;
- 35.1 dBA to 65.6 dBA during the paving phase; and
- 35.1 dBA to 65.6 dBA during the building construction phase.

Table 4.11-8
Maximum Phase 2 Construction Noise Levels without Mitigation Measures

Description ¹	Receptor Locations		Estimated Exterior Construction Noise Level ^{4,5}	Estimated Interior Construction Noise Level ^{4,5}
	Direction ²	Distance ³		
Trenching	Northwest	6,212	42.1	22.1
	South	87	79.2	59.2
	East	105	77.6	57.6
	West	50	84.0	64.0
Building Construction	Northwest	6,212	45.0	25.0
	South	87	82.0	62.0
	East	105	77.6	57.6
	West	50	84.0	64.0
Notes: 1. Grading for Phase 2 conducted in Phase 1 and no paving proposed in Phase 2. 2. Off-site uses to the northwest, south, and east are residential. On-site uses to the west after Phase 1 completion are residential and parks. 3. Distance is measured from the nearest off-site or on-site sensitive receptor to the closest approximate construction activity area for Phase 2 of the Project site. 4. Derived from the Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA-HEP-05-054)</i> , dated January 2006. Refer to Appendix H. 5. A typical building can reduce noise levels by 20 dBA with the windows closed. This assumes all windows and doors are closed, thereby attenuating the exterior noise levels by 20 dBA. Source: Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA – HEP – 05-054)</i> , January 2006; refer to Appendix H.				

To summarize, Phase 2 construction activities could expose adjacent receptors to interior noise levels of:

- 22.1 dBA to 64.0 dBA during the trenching phase; and
- 25.0 dBA to 64.0 dBA during the building construction phase.

Table 4.11-9
Maximum Phase 3 Construction Noise Levels without Mitigation Measures

Description	Receptor Locations		Estimated Exterior Construction Noise Level ^{3,4}	Estimated Interior Construction Noise Level ^{3,4}
	Direction ¹	Distance ²		
Grading	Northwest	200	77.8	57.8
	South	50	86.9	66.9
	East	50	86.9	66.9
	West	50	86.9	66.9
Trenching	Northwest	200	75.0	55.0
	South	50	86.9	66.9
	East	50	86.9	66.9
	West	50	86.9	66.9
Paving	Northwest	200	74.2	54.2
	South	50	86.9	66.9
	East	50	86.9	66.9
	West	50	86.9	66.9
Building Construction	Northwest	200	74.8	54.8
	South	50	86.9	66.9
	East	50	86.9	66.9
	West	50	86.9	66.9
Notes: 1. Off-site uses to the northwest are residential. On-site uses to the south, east, and west after Phase 1 and 2 completions are residential and parks. 2. Distance is measured from the nearest off-site or on-site sensitive receptor to the closest approximate construction activity area for Phase 3 of the Project site. 3. Derived from the Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA-HEP-05-054)</i> , dated January 2006. Refer to Appendix H. 4. A typical building can reduce noise levels by 20 dBA with the windows closed. This assumes all windows and doors are closed, thereby attenuating the exterior noise levels by 20 dBA. Source: Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA – HEP – 05-054)</i> , January 2006; refer to Appendix H.				

To summarize, Phase 3 construction activities could expose adjacent receptors to interior noise levels of:

- 57.8 dBA to 66.9 dBA during the grading phase;
- 55.0 dBA to 66.9 dBA during the trenching phase;
- 54.2 dBA to 66.9 dBA during the paving phase; and
- 54.8 dBA to 66.9 dBA during the building construction phase.

Table 4.11-10
Maximum Phase 4 Construction Noise Levels without Mitigation Measures

Description	Receptor Locations		Estimated Exterior Construction Noise Level ^{3,4}	Estimated Interior Construction Noise Level ^{3,4}
	Direction ¹	Distance ²		
Grading	Northwest	50	60.6	40.6
	South	325	86.9	66.9
	East	-	-	-
	West	50	89.1	69.1
Trenching	Northwest	200	87.0	67.0
	South	325	86.9	66.9
	East	-	-	-
	West	50	89.1	69.1
Paving	Northwest	200	86.9	66.9
	South	325	86.9	66.9
	East	-	-	-
	West	50	89.1	69.1
Building Construction	Northwest	200	85.6	65.6
	South	325	86.9	66.9
	East	-	-	-
	West	50	89.1	69.1
Notes: 1. Off-site uses to the south are residential. On-site uses to the northwest and west after Phase 1, 2, and 3 completions are residential. Uses to the east are the San Bernardino Mountain Range. 2. Distance is measured from the nearest off-site or on-site sensitive receptor to the closest approximate construction activity area for Phase 4 of the Project site. 3. Derived from the Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA-HEP-05-054)</i> , dated January 2006. Refer to Appendix H. 4. A typical building can reduce noise levels by 20 dBA with the windows closed. This assumes all windows and doors are closed, thereby attenuating the exterior noise levels by 20 dBA. Source: Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA – HEP – 05-054)</i> , January 2006; refer to Appendix H.				

To summarize, Phase 4 construction activities could expose adjacent receptors to interior noise levels of:

- 40.6 dBA to 69.1 dBA during the grading phase;
- 67.0 dBA to 69.1 dBA during the trenching phase;
- 66.9 dBA to 69.1 dBA during the paving phase; and
- 65.6 dBA to 69.1 dBA during the building construction phase.

Table 4.11-11
Maximum Phase 5 Construction Noise Levels without Mitigation Measures

Description	Receptor Locations		Estimated Exterior Construction Noise Level ^{3,4}	Estimated Interior Construction Noise Level ^{3,4}
	Direction ¹	Distance ²		
Grading	Northwest	1,640	58.8	38.8
	South	50	89.1	69.1
	East	-	-	-
	West	2,030	57.0	37.0
Trenching	Northwest	1,640	56.7	36.7
	South	50	89.1	69.1
	East	-	-	-
	West	2,030	57.0	37.0
Building Construction	Northwest	1,640	56.5	36.5
	South	50	89.1	69.1
	East	-	-	-
	West	2,030	57.0	37.0
Notes: 1. Off-site uses to the north and west are residential. On-site uses to the south after Phase 1, 2, 3, and 4 completions are residential. Uses to the east are the San Bernardino Mountain Range. 2. Distance is measured from the nearest off-site or on-site sensitive receptor to the closest approximate construction activity area for Phase 5 of the Project site. 3. Derived from the Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA-HEP-05-054)</i> , dated January 2006. Refer to Appendix H. 4. A typical building can reduce noise levels by 20 dBA with the windows closed. This assumes all windows and doors are closed, thereby attenuating the exterior noise levels by 20 dBA. Source: Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA – HEP – 05-054)</i> , January 2006; refer to Appendix H.				

To summarize, Phase 5 construction activities would expose adjacent receptors to interior noise levels of:

- 37.0 dBA to 69.1 dBA during the grading phase;
- 36.7 dBA to 69.1 dBA during the trenching phase; and
- 36.5 dBA to 69.1 dBA during the building construction phase.

The City's General Plan EIR notes that noise associated with future construction would impact adjacent lands; however, these impacts are expected to be short term. While recognizing that there may occasionally be noise impacts associated with heavy construction equipment, Project-specific implementation of General Plan EIR required mitigation measures and City Code requirements were determined to be sufficient to assure that reasonable noise levels would be maintained on and off-site during the construction phase of projects implemented pursuant to the General Plan. The General Plan EIR specifies both general and construction phase mitigation measures, all of which have either been incorporated into Chapter 8.44 (*Noise*) of the

City's Municipal Code or cited below as Mitigation Measures NOI-1, -2, and -3 for the proposed Project. The General Plan EIR concluded that, with implementation of these mitigation measures and Code requirements, construction noise impacts would be reduced to a less-than-significant level.

According to Chapter 8.44.090 (*Noises Prohibited*) of the Municipal Code, Banning exempts construction noise from strict adherence to the Base Ambient Noise Level (BANL) between the hours of 7 AM and 6 PM, but limits the exceedance to 15 minutes in any one hour period. It should be noted that the exact construction phasing, location, or orientation of proposed uses are not known at this time, and, therefore, areas that will be subject to potentially significant construction noise impacts will be determined on a project by project basis during the development of the site.

Implementation of Mitigation Measure NOI-1 includes both Project-specific mitigations and mitigation measures required by the City's General Plan EIR to reduce construction noise impacts by requiring the applicant to submit a Construction Noise Management Plan to the City's Building Official. As indicated in Mitigation Measure NOI-1, noise attenuation barriers may be required when construction activities would occur adjacent to sensitive receptors. Noise attenuation barriers constructed at the property lines to a height of 8 feet with an STC rating of at least 20 are capable of reducing noise levels by 7.7 dBA.¹ Additionally, Mitigation Measure NOI-2 would help reduce noise impacts by requiring an Applicant-provided Noise Disturbance Coordinator to enforce noise attenuating construction requirements.

NOI-1 As a condition of approval of all grading and building permits, the Applicant shall comply with the following list of noise reduction measures subject to inclusion of additional provisions at the discretion of the Building Official as appropriate:

- Excavation, grading, and other noise-intensive construction activities related to the proposed Project shall be restricted to the hours of operation allowed under Section 8.44.090.E, Noise Prohibited – Unnecessary Noise Standard – Construction, Landscape Maintenance or Repair, of the City Municipal Code. Any deviations from these standards shall require the written approval of the City Building Official. The days and hours shall also apply to any servicing of equipment and to the movement of materials to and from the site.
- The developer shall require, as a condition of contract, that all construction equipment operating on the site be equipped with mufflers and sound control devices (e.g., intake silencers and noise shrouds) no less effective than those provided on the original equipment and no equipment shall have an unmuffled exhaust.

¹ U.S. Department of Housing and Urban Development. *The Noise Guidebook*. 1985.

- The developer shall require all contractors, as a condition of contract, to maintain and tune-up all construction equipment to minimize noise emissions
- Stockpiling and vehicle staging areas shall be located a minimum of 500 feet from occupied residences.², and screened from these uses by a solid noise attenuation barrier where necessary to achieve City Municipal Code-required noise attenuation levels.
- Solid noise attenuation barriers (temporary barriers or noise curtains) with a sound transmission coefficient (STC) of at least 20 shall be used along Project boundaries adjacent to sensitive receptors, where noise monitoring, performed by a qualified noise monitor, indicates exceedance of City Municipal Code noise levels for more than 15 minutes in any one hour period.
- Construction activities that occur outside the allowable hours per City standards 6 PM to 7 AM) shall require approval of the City Building Official based on demonstration of unusual circumstances and avoidance of significant impacts to neighboring sensitive receptors. Construction noise exceeding City standards (i.e., interior noise in excess of 50 dBA or exterior noise in excess of 65 dBA) and statutory time limits is anticipated, shall require implementation of additional noise attenuation measures such as temporary noise “curtains” to reduce construction noise to meet City Standards, or offer the affected sensitive receptors the option of temporary relocation at the Developer’s expense for the duration of the impact.
- All stationary construction equipment (e.g., air compressor, generators, etc.) shall be operated as far away from the residential and institutional uses as feasible. If this is not feasible, the equipment shall be shielded with temporary sound barriers, sound aprons, or sound skins to the satisfaction of the Building Official.
- In areas subject to potentially significant construction noise impacts, the developer shall be required to monitor and document compliance with all applicable noise level limits.

² Each doubling of distance reduces the noise by approximately 4.5 dBA, so for peak construction noise such as scrapers, an exterior noise level of 84 dBA at 50 feet reduces to 70.5 dBA at 400 feet, with a 20 dBA typical noise reduction from closed windows, results in an interior noise level of 50.5 dBA, without any further consideration of attenuation by intervening topography, structures, or perimeter walls.

- Construction haul routes for large equipment and material import/export shall be specified to minimize the use of routes affecting sensitive receptors (e.g., residential, parks, hospitals, schools, convalescent homes, etc.). To the extent feasible, construction phasing for individual subdivisions shall be designed to avoid the need for construction vehicles and related construction traffic to traverse occupied residential neighborhoods. In all cases, trucks shall utilize a route that is least disruptive to sensitive receptors. Construction trucks shall, to the extent feasible, avoid weekday and Saturday AM and PM peak hours (7 AM to 9 AM and 4 PM to 6 PM).

NOI-2 Prior to the issuance of each grading or building permit, the Applicant shall submit to the Building Official a proposed Construction Noise Monitoring Program to respond to and track complaints pertaining to construction noise, throughout demolition and/or grading. Throughout and/or grading, these measures shall include the following:

- A procedure and phone numbers for notifying the City Building and Safety Department staff and Banning Police Department (during regular construction hours and off-hours);
- A sign prominently posted on-site containing the permitted construction days and hours and complaint procedures and the name and phone number of the person(s) to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);
- The designation of an on-site construction complaint and enforcement manager for the Project. The manager shall act as a liaison between the Project and its neighbors. The manager's responsibilities and authority shall include the following:
 - An active role in monitoring project compliance with respect to noise;
 - Ability to reschedule noisy construction activities to reduce effects on surrounding sensitive receivers;
 - Site supervision of all potential sources of noise (e.g., material delivery, construction staging areas, construction workers, debris box pick-up and delivery) for all trades;
 - Intervening or discussing mitigation options with contractors; and
 - Conducting a preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm

that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

With implementation of Mitigation Measures NOI-1 and -2, and conformance with the requirements of Chapter 8.44 of the City's Municipal Code, the impacts of construction-related noise on sensitive receptors would be reduced to a less-than-significant level.

Impact 4.11-2: Construction-Related Vibration Impacts

Threshold: *Would the project expose persons to or generate excessive ground borne vibration or ground borne noise levels.*

Determination: *Less than Significant with Mitigation Incorporated*

Construction activities can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s).

The City of Banning Municipal Code does not include a threshold standard for determining the significance of vibration impacts. In the absence of vibration thresholds in the City of Banning Municipal Code, guidance from Caltrans is utilized. Table 4.11-12, *Reaction of People and Damage to Buildings at Various Continuous Vibration Levels*, depicts human reactions to various ground vibration levels as well as the effects on buildings.

Table 4.11-12
Reaction of People and Damage to Buildings at Various Continuous Vibration Levels

Vibration Level Peak Particle Velocity (inches/second)	Human Reaction	Effect on Buildings
0.006-0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommend upper level of the vibration to which ruins and ancient monuments should be subjected
0.10	Continuous vibration begins to annoy people	Virtually no risk of "architectural" damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk of "architectural" damage to normal dwelling-houses with plastered walls and ceilings Special types of finishes such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
0.4 – 0.6	Vibrations considered unpleasant when continuously subjected.	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage
Source: California Department of Transportation, <i>Transportation Related Earthborne Vibrations, Technical Advisory, Vibration TAV-02-01-R9601</i> , February 20, 2002.		

Table 4.11-12 shows likely human reactions to continuous vibrations caused by passing trains, traffic, or potentially, the movement of heavy earthmoving equipment. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are therefore usually confined to short distances (i.e., 500 feet or less) from the source.

Table 4.11-13, *Typical Vibration Levels for Construction Equipment*, identifies various vibration velocity levels for types of construction equipment that would operate during construction.

Table 4.11-13
Typical Vibration Levels for Construction Equipment

Equipment	Approximate Ground Velocity in Decibels at 25 feet (inches/second)	RMS at 25 feet (inch/second)	Approximate Ground Velocity in Decibels at 50 feet (inches/second)	RMS at 50 feet (inch/second)
Large Bulldozer	87	0.089	81	0.044
Loaded Trucks	86	0.079	80	0.031
Jackhammer	79	0.035	73	0.018
Small Bulldozer	58	0.0003	52	0.002
Source: U.S. Department of Transportation (USDOT), Federal Transit Administration (FTA): Noise and Vibration Impact Assessment, April 1995, Chapter 12 $V_{dB} \text{ converted to RMS using } 10^{(V_{dB} + (12/20))} \times 0.000001 = v$; where v =RMS inch/second; 12=crest factor; 0.000001= accepted reference factor in the US and the Inverse Square Law of decay ($V_{dB2} = V_{dB1} - 20 \log(D_2/D_1)$)				

Ground borne vibration (GBV) created by construction activity, notably grading and excavation utilizing large bulldozers, would fall within the range of readily perceivable vibration at 25 feet from source but would not exceed the threshold at which continuous vibration would begin to annoy people. Ground borne vibration would attenuate at a rate of approximately 6 VdB per doubling of distance. The groundborne vibration generated during construction activities would therefore primarily impact sensitive uses that are located adjacent to or within 25 feet of specific project-related activity. It should be noted that the exact construction phasing, location, or orientation of proposed uses are not known at this time, and, therefore, areas that will be subject to potentially significant GBV impacts will be determined on a project by project basis during the development of the site. Since earthmoving equipment and accompany heavy trucks are not stationary, the vibration events at a particular location would be considered infrequent as defined by USDOT (30 or fewer vibration events per day), which are considered suitable for residential uses.

Based upon the information provided in Table 4.11-13, vibration levels could reach up to 87 VdB for construction activities involving large earthmoving equipment and heavy trucks at sensitive uses located within 25 feet of construction. This exceeds the GBV impact levels established by US Department of Transportation for infrequent events for Category 2 (residences) and Category 3 (institutional) land uses (80 VdB and 83 VdB respectively)³ which would be considered a significant impact. Implementation of mitigation measure NOI-3, would ensure that less than significant construction related vibration impacts associated with human

³ U.S. Department of Transportation (USDOT), Federal Transit Administration (FTA): Noise and Vibration Impact Assessment, April 1995, Chapter 8.

annoyance would be minimized during construction by requiring the operation of vibration generating equipment as far away from vibration-sensitive uses as feasible:

NOI-3 The Applicant shall, through contract specifications, prohibit the use of any on-site construction equipment generating greater than 0.049 RMS (greater than 79 VpD) within 25 feet of any sensitive use or limit the use of equipment exceeding this standard to less than 30 events per day.

Impact 4.11-3: Long-Term Mobile Noise Impacts

Threshold: Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Determination: Less than Significant with Mitigation Incorporated

Long-term development within the Project area would result in additional traffic on adjacent roadways, and an increase in vehicular noise in the vicinity of the existing and proposed land uses. The “Long-Term without Project” and “Long-Term With Project” traffic-related noise levels were compared, to determine the level of impact attributable to this project’s traffic. As previously discussed, an increase of five dBA or greater in noise levels occurring as a result of Project-related activities would be significant when the “Without Project” noise level is below 60 dBA CNEL. An increase of three dBA or greater in noise levels occurring as a result of Project-related activities would be significant when the “Without Project” noise level is between 60 to 65 dBA CNEL. Finally, an increase of 1.5 dBA or greater would be significant if the “Without Project” noise level is above 65 dBA CNEL.

In Table 4.11-14, *Long-Term Noise Scenarios*, the noise level (dBA at 100 feet from centerline) illustrates what would typically be heard 100 feet perpendicular to the roadway centerline. As indicated in Table 4.11-14 under the “Long-Term Without Project” scenario, noise levels at a distance of 100 feet from the centerline would range from approximately 61.4 dBA to 68.0 dBA. The highest noise levels under “Long-Term without Project” would occur along Oak Valley Parkway between I-10 westbound ramps and Elm Avenue. Although this segment would have the highest noise levels, the project’s 0.4 dBA increase would result in a less than significant impact.

It is important to note that the following mobile noise impacts do not account for noise attenuation provided by building insulation (i.e., normal noise reduction created by the building pursuant to Title 25 noise insulation standards, with windows closed). In many cases, traffic noise is further buffered from adjacent receptors by intervening topography, setbacks or structures including perimeter block walls, or by adjacent streets and/or drainage channels, by earthen berms and landscaping, and off-site areas may also include perimeter walls, setbacks and landscaping, all of which would serve to reduce the net noise impact during Project construction and operation.

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4.11 NOISE

Table 4.11-14
Long-Term Noise Scenarios

Roadway Segment	Long-Term Without Project		Long-Term With Project		Difference in dBA @ 100 feet from Roadway	Potentially Significant Impact without Mitigation
	ADT	CNEL @ 100 Feet from Roadway Centerline	ADT	CNEL @ 100 Feet from Roadway Centerline		
Oak Valley Parkway						
Between I-10 Westbound Ramps and Elm Avenue	42,355	68.0	46,520	68.4	0.4	No
Between Elm Avenue and Beaumont Avenue	26,035	65.9	30,915	66.6	0.7	No
Between Beaumont Avenue and Palm Avenue	23,795	65.6	29,275	66.5	0.9	No
Between Palm Avenue and Pennsylvania Avenue	23,280	65.4	29,535	66.5	1.1	No
Between Pennsylvania Avenue and Cherry Avenue	23,295	65.4	29,845	66.4	1.0	No
Between Cherry Avenue and Orchard Heights Avenue	21,140	64.11	28,110	66.2	1.3	No
Between Orchard Heights Avenue and Highland Springs Avenue	16,505	63.9	20,720	64.11	1.0	No
8 th Street						
Between Beaumont Avenue and Palm Avenue	11,160	62.4	14,550	63.6	1.2	No
Between Palm Avenue and Pennsylvania Avenue	13,265	63.2	17,370	64.4	1.2	No
Between Pennsylvania Avenue and Highland Springs Avenue	15,820	63.9	20,290	65.0	1.1	No

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Draft Subsequent EIR

4.11 NOISE

Table 4.11-14 (continued)
Long-Term Noise Scenarios

Roadway Segment	Long-Term Without Project		Long-Term With Project		Difference in dBA @ 100 feet from Roadway	Potentially Significant Impact without Mitigation
	ADT	CNEL @ 100 Feet from Roadway Centerline	ADT	CNEL @ 100 Feet from Roadway Centerline		
Wilson Street						
Between Highland Springs Avenue and C. Street	19,080	67.3	24,460	68.3	1.0	No
Between C. Street and Highland Home Road	22,615	68.0	29,140	69.1	1.1	No
Between Highland Home Road and Sunset Avenue	24,030	68.1	30,190	69.0	0.9	No
Between Sunset Avenue and Sunrise Avenue	22,955	68.2	28,200	69.1	0.9	No
Between Sunrise Avenue and 16 th Street	21,545	67.7	25,950	68.5	0.8	No
Between 16 th Street and 8 th Street	20,385	67.5	23,775	68.1	0.6	No
Between 8 th Street and 4 th Street	20,055	67.4	23,025	68.0	0.6	No
Between 4 th Street and San Gorgonio Avenue	20,270	67.7	23,065	68.2	0.5	No
Ramsey Street						
Between Highland Springs Avenue and Highland Home Road	25,760	65.6	26,475	65.7	0.1	No
Beaumont Avenue						
Between Oak Valley Parkway and 8 th Street	15,830	63.5	16,005	63.5	0	No
Palm Avenue						
Between Oak Valley Parkway and 8 th Street	10,100	61.7	10,275	61.8	0.1	No

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4.11 NOISE

Table 4.11-14 (continued)
Long-Term Noise Scenarios

Roadway Segment	Long-Term Without Project		Long-Term With Project		Difference in dBA @ 100 feet from Roadway	Potentially Significant Impact without Mitigation
	ADT	CNEL @ 100 Feet from Roadway Centerline	ADT	CNEL @ 100 Feet from Roadway Centerline		
Pennsylvania Avenue						
Between Oak Valley Parkway and 8 th Street	10,575	61.7	10,750	61.8	0.1	No
Highland Springs Avenue						
Between Brookside Avenue and 16 th Street	14,245	68.3	17,720	69.2	0.9	No
Between 16 th Street and F Street	8,775	66.2	14,080	68.2	2.0	No
Between F Street and Oak Valley Parkway	12,095	67.5	22,560	70.3	2.8	No
Between Oak Valley Parkway and Starlight Avenue	19,975	69.6	33,920	71.9	2.3	No
Between Starlight Avenue and 8 th Street	24,140	70.5	36,750	72.3	1.8	Yes
Between 8 th Street and 6 th Street	22,870	63.9	39,105	66.2	2.3	Yes
Highland Home Road						
Between Northern Loop and G Street ²	17,790	64.1	25,035	65.6	1.5	No
Between G Street and F Street ²	14,760	63.3	22,755	65.2	1.9	No
Between F Street and D Street ²	12,325	62.5	23,755	65.4	2.9	No
Between D Street and Wilson Street ²	11,985	62.4	24,255	65.5	3.1	Yes
Between Wilson Street and Ramsey Street	9,800	58.5	18,735	61.3	2.8	No
Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level.						
Source: Roadway segments information obtained from LSA Associates, <i>Butterfield Specific Plan Traffic Impact Analysis</i> , September 15, 2010. Noise levels and contour data determined by RBF Consulting.						

Under “Long-Term with Project” scenario exterior noise levels at a distance of 100 feet from the centerline would range from approximately 61.8 dBA to 68.4 dBA. The highest noise levels under “Long-Term with Project” would occur along the same roadway segments as the “Long-Term Without Project” scenario. 4.11The proposed project would exceed the allowable increase threshold along the following roadway segments:

- Highland Home Road (between D Street and Wilson Street)
- Highland Springs Avenue (Starlight Avenue and 8th Street); and
- Highland Springs Avenue (8th Street and 6th Street)

Two of the locations where potentially significant Project-related traffic noise increases may occur have sound attenuation features the effects of which are not reflected in the forecasted noise levels. Along Highland Springs Road between Starlight and 8th, the existing Sundance homes to the west of the project site are located in the City of Beaumont and have perimeter block walls along the frontage to provide some sound attenuation. Future development areas along the east side of this stretch of road are within the City of Banning and would be designed to provide adequate attenuation pursuant to the outdoor and indoor noise level requirements specified in the City Code. Along Highland Springs Road between 8th and 6th, there are either commercial uses that do not require attenuation, or future project areas that would be designed to incorporate sound attenuation features pursuant to City Code.

Along the segment of Highland Home Road between future “D Street” and Wilson there are existing residential uses with frontage on future Highland Home Road (Meridian Street). The Project proposes to retain the existing Meridian Street as a frontage road with a parkway separating Meridian Street from future Highland Home Road and the Project site, resulting in a distance of approximately 74 feet from existing Meridian Street right of way (east side) to future Highland Home Road centerline, in addition to separation provided by existing sidewalks and front yards. Existing homes along Meridian Street would therefore be buffered from future Highland Home Road traffic noise by two landscaped medians and approximately 100 feet of separation between future Highland Home Road centerline and the existing residential structures. As the Project-related increase is just above the 65 dBA threshold, and the rear yard areas are attenuated by the house, the rear yard exterior noise levels are not anticipated to exceed City noise standards. Interior noise levels to existing homes on the eastside of Highland Homes Road and north of Wilson Street are also not expected to exceed City noise standards, based on a typical noise reduction of 20 dBA for closed windows.

In addition to the typical noise reduction of 20- dBA for closed windows, once more detailed grading and Highland Home Road improvement plans have been developed, Mitigation Measure NOI-4 would require completion of a focused noise study⁴ for sensitive receptors

⁴ A construction-level acoustic study is not practical at this time, as this study requires final improvement and grading plans to verify elevations, road geometry, and topography.

along Highland Home Road (on-site and off-site) and Wilson Street to determine specific noise reduction measures required, if any, to ensure the proposed project meets the City of Banning exterior and interior noise standards; refer to Mitigation Measure NOI-4. Based on the above, and requirement for Project-level mitigation of Highland Home Road noise impacts, Project-related impacts would be reduced to a less than significant level.

NOI-4 Prior to the issuance of grading permits or encroachment permits for the improvement of Highland Home Road (aka Meridian Street) between future “D Street” and Wilson Street, an acoustical study shall be completed by the Applicant (using construction-level improvement plans and/or more detailed grading plans) and submitted to the City for review and approval. The acoustical study will specify additional specific noise attenuation measures necessary, if any, to ensure that the City of Banning’s exterior and interior noise standards are met at adjacent residential properties. Appropriate attenuation measures could include a solid wall in the landscaped parkway between future Highland Home Road and the existing frontage street.

Impact 4.11-4: General Plan and Noise Ordinance or Applicable Standards

Threshold: Would the Project expose persons to, or generate, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Determination: Less than Significant with Mitigation Incorporated

Impact Analysis: Refer to Impact Statements 4.11-1 regarding construction phase impacts and 4.11-3, regarding long-term street traffic impacts.

Impact 4.11-5: Operational Stationary Source Noise Impacts

Threshold: Would the Project result in stationary-source noise impacts on nearby sensitive receptors.

Determination: Less than Significant with Mitigation Incorporated

Residential Uses

The Project proposes new single-family and multi-family residential developments. Noise that is typical of residential areas includes children playing, pets, amplified music, mechanical equipment, car repair, and home repair. Noise from residential stationary sources would primarily occur during the “daytime” activity hours. The City’s Code provides procedures for complaints and enforcement of violations of the City’s noise standards which provide adequate mitigation for occasional violations of the noise standards by individual homeowners.

Accordingly, noise impacts to surrounding uses associated with implementation of the proposed project are anticipated to be less than significant.

Non-Residential Uses

The new commercial and retail uses, proposed satellite wastewater treatment plant, proposed fire station, parks, school sites, community center, and proposed golf course club house could increase noise levels in their proximity due to recreational uses associated with the parks, school sites, and the community center, truck deliveries, trash pickup and compacting, and other nighttime activities.

It should be noted that the potential wastewater treatment plant would be constructed indoors and therefore is not anticipated to generate a significant increase in ambient noise. In addition, construction of the wastewater treatment plant would be required to implement Mitigation Measure NOI-5 requiring the wastewater treatment plant to obtain a conditional use permit (CUP) and would be required to perform an acoustical analysis, to be approved by the City of Banning, ensuring that the wastewater treatment plan would adhere to noise level thresholds established in the City of Banning *General Plan* and City Code.

Slow Moving Truck Deliveries and Loading Dock Activities. Noise sources at loading docks may include maneuvering and idling trucks, truck refrigeration units, forklifts, banging and clanging of equipment (i.e., hand carts and roll-up doors), noise from public address systems, and voices of truck drivers and employees. The maximum noise levels of slow-moving heavy and small trucks at the loading areas range between 70 dBA and 73 dBA at 50 feet. The maximum level associated with loading docks is typically 76.5 dBA at 50 feet.

The proposed commercial and other non-residential uses are not anticipated to require a significant amount of truck deliveries, given the nature of the uses (neighborhood retail, office and school) and scale (relatively small-scale neighborhood or community uses (such as a neighborhood market), as opposed to regional retail or regional industrial/office which would generate more truck trips). Since the proposed commercial and other non-residential uses would be relatively small, the amount of truck trips would also be relatively low when compared to larger similar types of commercial and non-residential uses. As such, the noise associated with large truck and smaller cargo van deliveries would not be significant. In addition, due to the proposed commercial and non-residential uses being relatively small, the deliveries would consist of vendor deliveries in vans and would be somewhat infrequent and irregular, as opposed to regional type commercial and other non-residential uses. Although truck trips are not anticipated to significantly increase noise within the project area, Mitigation Measure NOI-5 would require noise from proposed commercial and retail uses to be analyzed in further detail once site specific plans have been developed. Implementation of Mitigation Measure NOI-5 would reduce impacts to a less than significant impact level.

Trash Pickup and Compacting. Noise from trash pickup and compacting results from the use of hydraulic equipment to raise and lower the metal trash bins and to compact their contents. The peak noise level is 73.4 dBA at 50 feet during the raising, lowering, and compacting operations. A typical trash pickup takes approximately three minutes. This noise level occurs during approximately one-half of the operation. It is not anticipated that these activities would create a significant impact, as it is a short-term periodic activity.

PAs 1A, 2, 3, 4, and 8 are located adjacent to the proposed commercial uses; Planning Area 11 may be located adjacent to the proposed satellite wastewater treatment facility; and Planning Area 45 is located adjacent to the golf course clubhouse and parking lot. As the exact construction phasing, location, or orientation of proposed uses are not known at this time, Mitigation Measure NOI-5 would require a site specific acoustical assessment in these PAs to evaluate the potential noise impacts to the existing and proposed noise sensitive uses. With implementation of Mitigation Measure NOI-5, noise impacts associated with truck deliveries and trash pickup and compaction would be reduced to a less than significant Level.

NOI-5 Prior to the issuance of building permits for non-residential uses (such as commercial areas, wastewater treatment plant, and the golf course clubhouse), the Applicant shall prepare a site-specific construction level noise analysis, analyzing potential on and off site noise impacts, based upon detailed grading plans, improvement plans and site plans. The grading, site and/or improvement plans for these uses shall include the location of stationary noise sources, such as loading docks, air conditioning units, trash hauling and trash compactors (noise from trash pickup and compacting results from the use of hydraulic equipment to raise and lower the metal trash bins and to compact their contents), and drive-thru lanes. The noise analysis shall evaluate the potential noise impacts to the existing and proposed noise sensitive homes near the commercial areas of the project. In the event the analysis shows that noise levels for any adjacent sensitive receptor(s) would exceed applicable standards, measures shall be required to reduce noise to levels to within applicable standards, including providing enclosures for stationary sources (such as pump stations and air conditioners), and providing walls or siting to attenuate mobile or stationary sources from receptors (such as loading bays). The analysis shall be subject to review and approval by the City Building Official and shall ensure compliance with applicable exterior and interior noise standards.

4.11.5 CUMULATIVE IMPACTS

Threshold: Would the proposed project and other approved or pending projects result in cumulatively considerable construction noise impacts.

Determination: Cumulative Construction Phase Noise Impacts: Less than Significant with Mitigation Incorporated

Determination: Cumulative Mobile Noise Impacts: Significant and Unavoidable

Determination: Cumulative Operational Noise Impacts: Less than Significant

Construction Noise Impacts

Construction-related noise for the proposed project and each related project would be localized. Additionally, each of the various cumulative projects would be required to comply with the local noise ordinance, as well as mitigation measures that may be prescribed pursuant to CEQA on a project-specific basis.

Construction noise impacts would cease upon completion of excavation, grading, and building activities. Compliance with project-specific mitigation, compliance with General Plan EIR mitigation measures, as well as compliance with City Code requirement, would serve to minimize the length of time noise-sensitive receptors are exposed to significant noise levels that exceed City standards. In addition, because noise dissipates as it travels away from its source, noise impacts from construction activities would be limited to each of the respective sites and their vicinities. Construction noise from cumulative projects would not interact with noise from the proposed Project due to distances between the specific sites. Therefore, a less than significant impact would occur in this regard.

Cumulative Mobile Noise Impacts

The cumulative mobile noise analysis is conducted in a two step process. First, the combined effects from both the proposed Project and other projects are compared. Second, for combined effects that are determined to be cumulatively significant, the Project's incremental effects then are analyzed. The Project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The combined effect compares the "Long-Term with Project" condition to "existing" conditions. This comparison accounts for the traffic noise increase from the Project generated in combination with traffic generated by projects in the cumulative projects list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase and are based on data from the Federal Interagency Committee on Noise (FICON), who issued this method to assess noise impacts via the Federal Register on July 14, 2000.

Combined Effects: The cumulative with Project noise level (“Long-Term with Project”) causes the following:

- An increase of the existing noise level by 5 dBA or more, where the existing level is less than 60 dBA CNEL;
- An increase of the existing noise level by 3 dBA or more, where the existing level is 60 to 65 dBA CNEL; or
- An increase of the existing noise level by 1.5 dBA or more, where the existing level is greater than 65 dBA CNEL.

Although there may be a significant noise increase due to the proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the proposed Project has a significant incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

Incremental Effects: The “Long-Term with Project” causes a 1 dBA increase in noise over the “Long-Term Without Project” noise level.

A significant impact would result only if **both** the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon, and is dramatically reduced as distance from the source increases. Consequently, only proposed projects and growth anticipated to occur in the general vicinity of the proposed Specific Plan area would contribute to cumulative noise impacts. Table 4.11-15, *Cumulative Noise Scenarios*, lists the traffic noise effects along roadway segments in the project vicinity for “Existing Without Project”, “Long-Term Without Project”, and “Long-Term With Project”, including incremental and net cumulative impacts.

It is important to note that the following mobile noise impacts do not take into account attenuation provided by building insulation pursuant to Title 25 (i.e., normal noise reduction created by the building, with windows closed).

First, it must be determined whether the *Combined Effects* criterion is exceeded. Per Table 4.11-15, the criterion is exceeded along the following study roadways:

- Oak Valley Parkway (between Palm Avenue and Pennsylvania Avenue)
- Oak Valley Parkway (between Pennsylvania Avenue and Cherry Avenue)
- Oak Valley Parkway (between Cherry Avenue and Orchard Heights Avenue)
- Oak Valley Parkway (between Orchard Heights Avenue and Highland Springs Avenue)
- 8th Street (between Beaumont Avenue and Palm Avenue)
- 8th Street (between Palm Avenue and Pennsylvania Avenue)
- 8th Street (between Pennsylvania Avenue and Highland Springs Avenue)

- Wilson Street (between Highland Springs Avenue and C Street)
- Wilson Street (between C Street and Highland Home Road)
- Wilson Street (between Highland Home Road and Sunset Avenue)
- Wilson Street (between Sunset Avenue and Sunrise Avenue)
- Wilson Street (between Sunrise Avenue and 16th Street)
- Wilson Street (between 16th Street and 8th Street)
- Wilson Street (between 8th Street and 4th Street)
- Wilson Street (between 4th Street and San Geronio Avenue)
- Ramsey Street (between Highland Springs Avenue and Highland Home Road)
- Palm Avenue (between Oak Valley Parkway and 8th Street)
- Pennsylvania Avenue (between Oak Valley Parkway and 8th Street)
- Highland Springs Avenue (between Brookside Avenue and 16th Street)
- Highland Springs Avenue (between 16th Street and F Street)
- Highland Springs Avenue (between F Street and Oak Valley Parkway)
- Highland Springs Avenue (between 8th Street and 6th Street)
- Highland Home Road (between Wilson Street and Ramsey Street)

Secondly, it must be determined whether the *Incremental Effects* criterion is exceeded. Per Table 4.11-15, the *Incremental Effects* criterion is exceeded along the following study roadways:

- Oak Valley Parkway (between Palm Avenue and Pennsylvania Avenue)
- Oak Valley Parkway (between Pennsylvania Avenue and Cherry Avenue)
- Oak Valley Parkway (between Cherry Avenue and Orchard Heights Avenue)
- Oak Valley Parkway (between Orchard Heights Avenue and Highland Springs Avenue)
- 8th Street (between Beaumont Avenue and Palm Avenue)
- 8th Street (between Palm Avenue and Pennsylvania Avenue)
- 8th Street (between Pennsylvania Avenue and Highland Springs Avenue)
- Wilson Street (between Highland Springs Avenue and C Street)
- Wilson Street (between C Street and Highland Home Road)
- Wilson Street (between Highland Home Road and Sunset Avenue)
- Highland Springs Avenue (between Brookside Avenue and 16th Street)
- Highland Springs Avenue (between 16th Street and F Street)
- Highland Springs Avenue (between F Street and Oak Valley Parkway)
- Highland Springs Avenue (between 8th Street and 6th Street)
- Highland Home Road (between Wilson Street and Ramsey Street)

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4.11 NOISE

Therefore, the proposed Project would make a cumulatively considerable contribution to cumulative background traffic noise levels, resulting in a cumulatively significant impact at the 13 roadway segments identified in Table 4.11-15.

**Table 4.11-15
Cumulative Noise Scenarios**

Roadway Segment	Existing Without Project	Long-Term Without Project	Long-Term With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing Without Project and Long-Term With Project	Difference in dBA between Long-Term With Project and Long-Term Without Project	
Oak Valley Parkway						
Between I-10 Westbound Ramps and Elm Avenue	61.0	68.0	68.4	7.4	0.4	No
Between Elm Avenue and Beaumont Avenue	60.7	65.9	66.6	5.9	0.7	No
Between Beaumont Avenue and Palm Avenue	60.9	65.6	66.5	5.6	0.9	No
Between Palm Avenue and Pennsylvania Avenue	60.2	65.4	66.5	6.3	1.1	Yes
Between Pennsylvania Avenue and Cherry Avenue	59.8	65.4	66.4	6.6	1.0	Yes
Between Cherry Avenue and Orchard Heights Avenue	59.3	64.11	66.2	6.9	1.3	Yes
Between Orchard Heights Avenue and Highland Springs Avenue	57.6	63.9	64.11	7.3	1.0	Yes
8th Street						
Between Beaumont Avenue and Palm Avenue	54.1	62.4	63.6	8.7	1.2	Yes
Between Palm Avenue and Pennsylvania Avenue	55.2	63.2	64.4	9.2	1.2	Yes

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4.11 NOISE

Table 4.11-15 (continued)
Cumulative Noise Scenarios

Roadway Segment	Existing Without Project	Long-Term Without Project	Long-Term With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing Without Project and Long-Term With Project	Difference in dBA between Long-Term With Project and Long-Term Without Project	
Between Pennsylvania Avenue and Highland Springs Avenue	57.1	63.9	65.0	7.9	1.1	Yes
Wilson Street						
Between Highland Springs Avenue and C. Street	61.8	67.3	68.3	6.5	1.0	Yes
Between C. Street and Highland Home Road	62.5	68.0	69.1	6.6	1.1	Yes
Between Highland Home Road and Sunset Avenue	61.7	68.1	69.0	7.3	0.9	Yes
Between Sunset Avenue and Sunrise Avenue	61.2	68.2	69.1	7.9	0.9	No
Between Sunrise Avenue and 16 th Street	60.2	67.5	68.5	8.3	0.8	No
Between 16 th Street and 8 th Street	59.7	67.5	68.1	8.4	0.6	No
Between 8 th Street and 4 th Street	59.1	67.4	68.0	8.9	0.6	No
Between 4 th Street and San Geronio Avenue	59.0	67.7	68.2	9.2	0.5	No
Ramsey Street						
Between Highland Springs Avenue and Highland Home Road	61.2	65.6	65.7	4.5	0.1	No
Beaumont Avenue						
Between Oak Valley Parkway and 8 th Street	60.9	63.5	63.5	2.6	0	No
Palm Avenue						
Between Oak Valley Parkway and 8 th Street	54.7	61.7	61.8	7.1	0.1	No
Pennsylvania Avenue						
Between Oak Valley Parkway and 8 th Street	58.3	61.7	61.8	3.5	0.1	No
Highland Springs Avenue						

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4.11 NOISE

Table 4.11-15 (continued)
Cumulative Noise Scenarios

Roadway Segment	Existing Without Project	Long-Term Without Project	Long-Term With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact
	dBa @ 100 Feet from Roadway Centerline	dBa @ 100 Feet from Roadway Centerline	dBa @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing Without Project and Long-Term With Project	Difference in dBA between Long-Term With Project and Long-Term Without Project	
Between Brookside Avenue and Oak Valley Parkway ¹	63.3	N/A	N/A	N/A	N/A	N/A
Between Brookside Avenue and 16 th Street	63.3	68.3	69.2	5.9	0.9	Yes
Between 16 th Street and F Street	63.3	66.2	68.2	4.9	2.0	No
Between F Street and Oak Valley Parkway	63.3	67.5	70.3	7.0	2.8	No
Between Oak Valley Parkway and Starlight Avenue	65.7	69.6	71.9	6.2	2.3	Yes
Between Starlight Avenue and 8 th Street	67.1	70.5	72.3	5.3	1.8	Yes
Between 8 th Street and 6 th Street	61.6	63.9	66.2	4.6	2.3	Yes
Highland Home Road						
Between Northern Loop and G Street ²	N/A	64.1	65.6	N/A	1.5	N/A
Between G Street and F Street ²	N/A	63.3	65.2	N/A	1.9	N/A
Between F Street and D Street ²	N/A	62.5	65.4	N/A	2.9	N/A
Between D Street and Wilson Street ²	N/A	62.4	65.5	N/A	3.1	N/A
Between Wilson Street and Ramsey Street	47.9	58.5	61.3	13.4	2.8	Yes
Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level.						
1. Existing Without Project Scenario segment was bisected into two additional intersections under Long-Term Without Project Scenario and Long-Term With Project Scenario.						
2. Future roadway segment does not exist under Existing Without Project Scenario conditions.						
Source: LSA Associates, <i>Butterfield Specific Plan Traffic Impact Analysis</i> , September 15, 2010. Noise levels and contour data determined by RBF Consulting.						

Cumulative Operational Noise

The proposed Project would introduce the use of stationary equipment that would increase noise levels within the project area; however, based on the operational stationary source noise impacts analysis, these impacts would be less than significant. Future development proposals within the Cities of Beaumont and Cherry Valley would require separate discretionary approval and CEQA assessment, which would address potential noise impacts and identify necessary attenuation measures, where appropriate.

Mitigation for Cumulative Noise Impacts

The City of Banning requires future developments to consider long-term mobile and stationary noise impacts as part of the project review and approval process, and to incorporate on-site design features to mitigate potentially significant impacts. Many of the affected streets contain non-sensitive uses such as commercial/retail (such as portions of Wilson Street and Highland Springs Avenue), or have residential uses constructed with adequate sound walls given their location on major arterials (such as Highland Springs Avenue). Older residential areas also include perimeter walls that reduce future noise impacts. However, for some older portions of the City, residential areas or other sensitive uses may not have adequate sound attenuation (particularly for units that “front” onto a street, such as those located adjacent to and south of Wilson Street, making sound walls infeasible). The City does not currently have a program for addressing cumulative noise mitigation for existing residential uses.

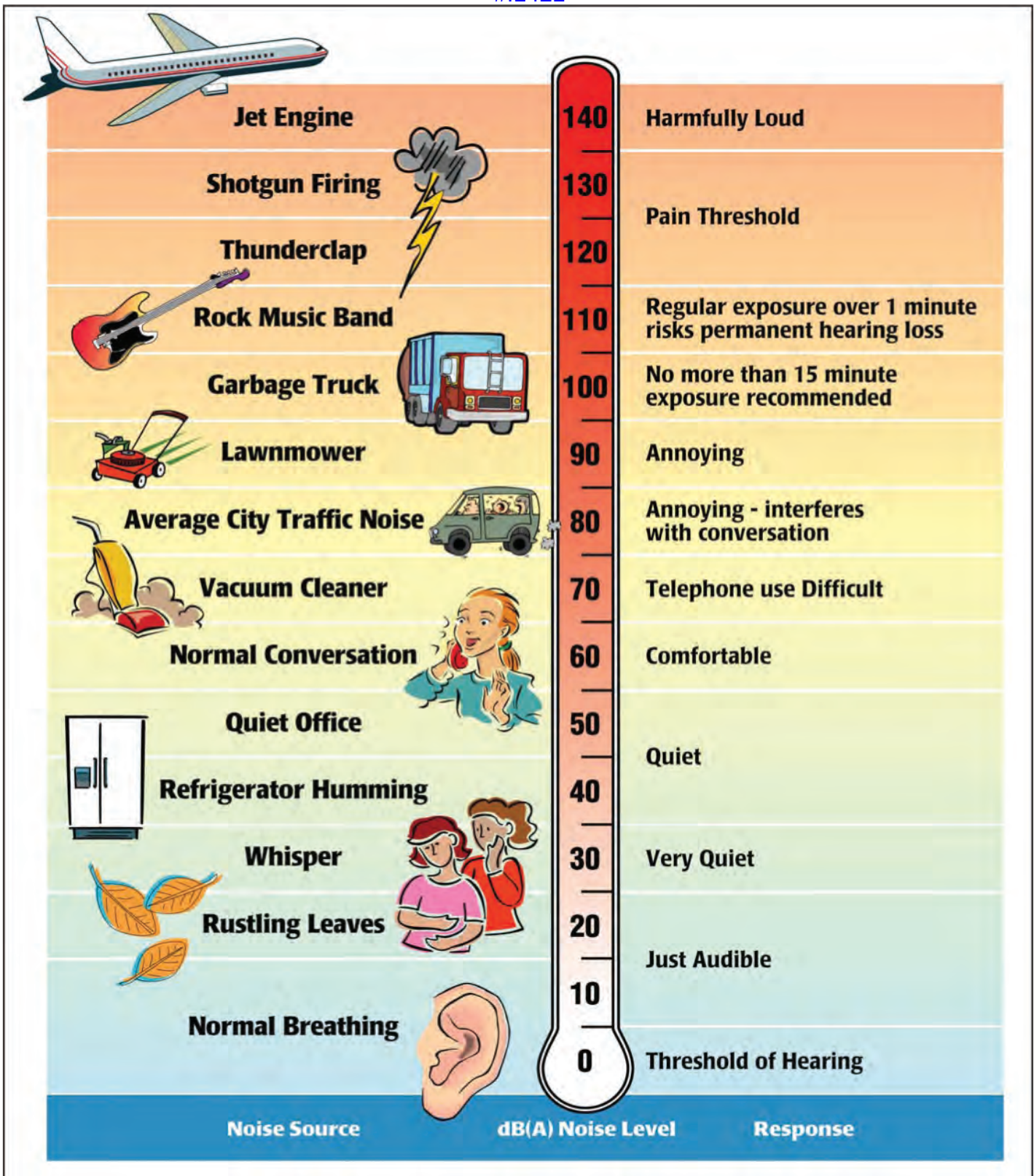
4.11.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of Mitigation Measures NOI-1 and -2, and conformance with the requirements of Chapter 8.44 of the City’s Municipal Code, the impacts of construction-related noise on sensitive receptors would be reduced to a less than significant level.

With implementation of NOI-3, vibration impacts would be reduced to less than significant levels.

With implementation of NOI-4 and NOI-5, mobile and stationary source noise impacts to existing and proposed sensitive receptors would be reduced to less than significant levels.

As the project cannot reasonably or feasibly mitigate for cumulative mobile noise impacts (constructing sound walls along the entire perimeter of the sensitive uses surrounding the project site; force existing residential uses to change their existing windows; etc.), implementation of the proposed project would result in a significant and unavoidable impact for cumulative mobile noise impacts, as both the combined and incremental effects criteria have been exceeded.



Source: Melville C. Branch and R. Dale Beland, *Outdoor Noise in the Metropolitan Environment*, 1970.

Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (EPA/ONAC 550/9-74-004), March 1974.



● - Noise Monitoring Location

SOURCE: Google Earth Imagery (Aerial Photo date pre-2009)

RBF
CONSULTING

NOT TO SCALE

5/27/11 JN: 65-100290

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Noise Measurement Locations

AR 004081
EXHIBIT 4.11-2

AR000685

SECTION 4.12

PUBLIC SERVICES AND UTILITIES

4.12.1 INTRODUCTION

This section evaluates potential Project impacts on public services and utilities by identifying anticipated demand and evaluating its relationship to existing and planned public services facilities and utility services availability. For purposes of this EIR, public services consist of: (1) fire protection, (2) police protection, (3) schools, (4) library services, (5) health care services, and (6) parks and recreation. Utilities include: (1) solid waste collection and disposal, (2) wastewater conveyance and treatment, (3) energy, and (4) communications.

Other sections of the EIR evaluate related impacts: roads and emergency access are analyzed in Section 4.13, *Traffic and Transportation* impacts related to fire department response to wildfire are assessed in Section 4.8, *Hazards and Hazardous Materials*; stormwater and drainage are discussed in Section 4.9, *Hydrology and Water Quality*; and water supply and distribution, including a more detailed discussion of recycled water, is addressed in Section 4.14, *Water Supply*.

4.12.2 EXISTING CONDITIONS

4.12.2.1 ENVIRONMENTAL SETTING

FIRE PROTECTION SERVICES

Fire protection services are provided to the City of Banning by the Riverside County Fire Department (RCFD), which contracts with the California Department of Forestry (Cal Fire). As a contracting municipality, the City of Banning is part of the County's Regional Fire Protection Program. The City is served by the Oak Glen Division of the County Department and shares services with the cities of Beaumont, Calimesa, and Cabazon as well as adjacent unincorporated areas. This arrangement allows each city to have access to and benefit from the services provided by fire stations located within each other's municipal boundaries.¹

The fire protection services contract between the City of Banning and Riverside County Fire Department also provides Banning with a Fire Marshal whose responsibilities include plan reviews, coordination with the City for disaster preparedness programs, and management of programs such as weed abatement, inspections, and hazardous materials.

The RCFD Oak Glen Division operates three stations located in the vicinity of the Project site: Station 20, Station 66, and Station 89; refer to Table 4.12-1, *Fire Stations within the Project Vicinity*.

¹ City of Banning, *General Plan EIR, Section K (Public Services) – Fire Protection*, pp III-201.

Station 20, located in the City of Beaumont, is approximately 0.34 mile from the intersection of Highland Springs Avenue and Wilson Street at the southwest boundary of the Project site and would be the first responder to any emergency calls originating within the Project during the initial phases of its development.

Paramedic services are provided by American Medical Response (AMR) through the Perris Command Center in coordination with RCFD.

Service Standards and Response Time Objectives

Banning has adopted a Fire Services and Fire Protection Master Plan. One of its goals is to have a fire station within five miles of Category III areas, the General Plan Police and Fire Protection Element includes a policy that calls for a 5-minute response time. Each of the three fire stations identified in Table 4.12-1 is located less than 5 miles from the intersection of Highland Springs Avenue and Wilson Street. Station 20, located approximately 0.35 miles from the Wilson/Highland Springs intersection, and has a response time to the Project site of approximately 3-5 minutes in normal, non-peak hour traffic. Travel time to the intersection of Highland Springs Avenue and Brookside Avenue in the northwest quadrant of the site, a distance of approximately 3.28 miles, is estimated to be approximately 6-8 minutes in non-peak traffic².

Proposed Future Facilities

According to the City's General Plan EIR, provision of an additional fire station is being considered in the northern portion of the City. Representatives for the City from the Riverside County Fire Department have indicated that additional fire protection units, facilities, services, and/or staffing could be needed in the area with development of the Butterfield Specific Plan Project.³ As indicated, the additional units, services, and staffing could be located in the future at existing facilities, at future new facilities within the Project area, or in the surrounding area.

Fire Facilities Fee

The City of Banning assesses a Fire Facilities Impact Fee as a condition precedent to building permit issuance for all single-family homes constructed within the City (*MC Chapter 15.72.010*). The fee represents the property owner's *fair share* of the estimated cost to construct additional

² All distances to Project site are from Riverside County Station 20, Beaumont Battalion 3, Oak Glen Division, 1550 East 6th Street, Beaumont Career Firefighters. Distances calculated utilizing Google Earth Pro 2010 aerial image, path measurement tool, length in miles. Yahoo Maps driving directions tool providing driving directions, driving distance, and driving time.

³ Email response from Battalion Chief Jeff Stowells on 8/18/10 and subsequent discussion with County Fire and Cal Fire, including at a meeting on 4/20/11 at the City with Battalion Chief Stowells, Assistant City Fire Marshall Doug Clarke, and City staff.

fire facilities serving the property. The amount of the fee is currently \$1,335 per single family dwelling unit and is in addition to fire plan check and inspection fees.

Emergency Medical Response Services

Emergency medical services, including ambulance services, are currently provided under contract with the County by American Medical Response, a private contractor. Their services and vehicles are regional and there is no unit assigned specifically to Banning. The General Plan Police and Fire Protection Element includes a Goal of maintaining a 5-minute response time for the Fire Department Ambulance Services.

**Table 4.12-1
Fire Stations Within the Project Vicinity**

Station No.	Station Name	Address	Distance from Project Site	Participating Agencies	Equipment
Station 20	Beaumont	1550 E. 6th St., Beaumont, CA 92223	0.34 miles east of the southwest corner	CDF/Riverside County/Contract City with Paramedic Firefighters	1 City Medic Engine, 2 State Engines, 1 Dozer 1 Type I Haz Mat Unit
Station 66	Beaumont	628 Maple St., Beaumont, CA 92223	1.8 miles west of the southwest corner	CDF/Riverside County/Contract City with Paramedic Firefighters	1 City Medic Engine
Station 89	Banning	172 North Murray, Banning, CA 92220	3.5 miles east of the southeast corner	CDF/Riverside County/Contract City with Paramedic Firefighters	1 City Medic Engine, 1 OES Engine
Source: Riverside County Fire Department website, Accessed June 29, 2010 from http://www.rvcfire.org/opencms/facilities/FireStations/ .					

POLICE PROTECTION SERVICES

The City of Banning Police Department is headquartered in its new central station building, completed in 2010 and located at 125 E. Ramsey Street. The Department currently employs 41

sworn personnel and 20 classified personnel⁴ and provides law enforcement services to the Project area.

The *Operations Department* includes the Patrol Division, Traffic Division, K-9 Team, Reserve Police Officer Program, Chaplain, and the Abandoned Vehicle Abatement (AVA) Program. The *Special Operations Department* is comprised of Community Oriented Policing, the Narcotics Task Force, and the Gang Unit.

Deployment

The Banning Police Department Patrol Division is currently organized into two 12-hour shifts per day. The Department divides the City into either two or three geographic areas or “beats.” When personnel are deployed in a two beat system, the beats are divided at San Geronio Avenue and cover the east and west portions of the City. When personnel are deployed in a three beat system Beat #1 covers the area from San Geronio Avenue to the eastern City limits, Beat #2 covers between San Geronio Avenue and 22nd Street, and Beat #3 covers the area between 22nd Street to the western City limits.

Crime Rates

Burglaries and thefts account for the majority of crimes in the City, though the number of such incidents has been steadily decreasing since 2005. Between 1999 and 2008 crimes of all types have decreased and Banning’s overall crime rate is now below the national average for a city of its size.⁵

Service Standards, Ratios, and Response Time Objectives

Banning Police Department officers respond to high priority calls within 3-7 minutes, depending on the time of the day and traffic flow. The City currently maintains a ratio of 1.4 sworn officers for every 1,000 residents; however, the City’s General Plan establishes a level of service Goal of 2.0 sworn officers for every 1,000 residents. To achieve that Goal with the City’s current population, Banning would need to hire an additional 17 sworn officers.

Facilities

In 2010 the Police Department moved into new “state of the art” facilities that anticipate, and are designed to accommodate, future needs for force expansion. The new facility not only houses the Police Department but also provides offices for the San Geronio Special Operations Gang Task Force and the Riverside County Youth Accountability Team.

⁴ <http://www.banningpolice.org/>, accessed on July 13, 2010.

⁵ City Data – Crime in Banning California, <http://www.city-data.com/crime/crime-Banning-California.html>, accessed 8/18/10.

Police Facilities Fees

The City imposes a Police Facilities Impact Fee on new development⁶ that currently ranges from \$24.00 per bed for nursing homes to \$823 per unit for single family housing and \$913 per unit for multifamily housing. These fees are used exclusively for acquisition of land, design, and construction or expansion of police facilities and represents new development's fair share of the cost of any needed new or expanded facilities.

PUBLIC SCHOOL FACILITIES – BEAUMONT AND BANNING UNIFIED SCHOOL DISTRICTS

The proposed Project is served by both the Banning Unified School District and the Beaumont Unified School District (USD). The majority of the Project site is west of the boundary between the two Districts, which is generally formed by Highland Home Road. The boundary between the Beaumont and Banning USDs may be adjusted at a later date by the districts to reflect the proposed Specific Plan PAs; however, the Project does not require or propose this action. Since that boundary shift has not been initiated or approved, the EIR analysis describes the distribution of pupils between the Districts based on the existing boundaries. The existing school district boundaries are shown in Exhibit 4.12-1, *Beaumont and Banning USD Boundaries*.

The Project proposes two 11+ acre elementary school sites located in Planning Areas 20 and 68. Per Title 5, California Code of Regulations, the net usable acreage and enrollment for a new school site shall be consistent with the numbers of acres and enrollment established in Tables 1-6 of the 2000 Edition, "School Site Analysis and Development" published by the California Department of Education. For an elementary school with a school enrollment of 450 students, the required acreage would be 9.2 acres. An elementary school with an enrollment of 750 students requires 13.1 acres. An elementary school with an enrollment of 1,200 students requires 16.4 acres.

Beaumont Unified School District

The Beaumont USD serves kindergarten through 12th grade and has a current enrollment of approximately 8,267 students.⁷ The Project would be served by Sundance Elementary School, San Geronio Middle School, and Beaumont High School. As illustrated in Table 4.12-2, *Beaumont Unified School District School Facilities Serving the Project Site*, both the elementary and middle schools have existing excess capacity. The high school enrollment currently exceeds its design capacity; however, Beaumont USD is pursuing expansion of Beaumont High School. When complete, the expansion would include a 24-classroom addition that would accommodate approximately 600 students, increasing the school's capacity to 2,662 students

⁶ Municipal Code 15.72.020.

⁷ <http://www.beaumont-ca.schoolloop.com/>, accessed on June 30, 2010.

and 152 staff.⁸ The Project proposes setting aside PA 20 in the Project area for a Beaumont USD school site.

Table 4.12-2
Beaumont Unified School District
School Facilities Serving the Project Site

School	Location	Enrollment	Current Capacity	Remaining Capacity
Sundance Elementary School (K-5)	1520 East 8 th Street	696	807	111
San Gorgonio Middle School (6-8)	1591 N. Cherry Avenue	961	1375	414
Beaumont High School (9-12)	39139 Cherry Valley Boulevard	2214	2446	-232
Source: Beaumont Unified School District, School Year 2009-2010.				

Banning Unified School District

The Banning USD serves kindergarten through 12th grade in eight schools and an independent study home schooling program and enrolls approximately 5,000 students. The Banning USD schools that would serve the proposed Project, their location and capacity are provided in Table 4.12-3, *Banning Unified School District School Facilities Serving the Project Site*. All of these schools have existing excess capacity.

As boundaries between the Districts are currently configured, the Banning USD would serve portions of the Project residential Planning Areas (PAs) including all of PAs 50, 51 and 52. A potential boundary adjustment that would follow the proposed alignment of Highland Home Road through the Project site could shift PAs 60 and 61, containing approximately 412 housing units, to the Banning USD while moving portions of PAs 48, 49, 53 and 54, containing approximately 84 housing units, to the Beaumont USD. An elementary school site for the Banning USD is set aside in PA 68.

⁸ Beaumont Unified School District; *Final Mitigated Negative Declaration, Beaumont High School Expansion. Sports Complex and Administrative Center*, March 2010. https://beaumont-ca.schoolloop.com/cms/page_view?d=x&piid=&vpid=1262503190764, accessed August 21, 2010.

Table 4.12-3
Banning Unified School District
School Facilities Serving the Project Site

School	Location	Enrollment	Capacity	Remaining Capacity
Hemmerling Elementary (K-4)	1928 W. Nicolet Street	461	632	171
Susan B. Coombs Intermediate (5-6)	1151 W. Wilson Street	706	772	66
Nicolet Middle School (7-8)	101 E. Nicolet Street	697	1041	344
Banning High School	100 W. Westward	1,063	1630	567
Source: Banning Unified School District reported on July 8 of 2009-2010 school year.				

School Facilities Revenue Sources

The *Leroy F. Greene School Facilities Act of 1998 (SB 50)* imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and authorized school districts to levy statutory school facilities fees on new development to finance the construction of schools.

In the Beaumont USD the residential rate is \$3.30 per square foot and the commercial rate is \$0.47 per square foot. In the Banning USD, the residential rate is \$3.27 per square foot for residential units and \$0.47 per square foot for commercial uses; both Districts levy Level II fees. The payment of school mitigation impact fees authorized by SB 50 is deemed to provide full and complete mitigation of Project impacts on school facilities pursuant to CEQA. In addition to revenue from developer fees, both the Banning and Beaumont USDs have successfully passed general obligation bond measures to generate funding for public school capital improvements.

LIBRARY SERVICES – BEAUMONT AND BANNING LIBRARY DISTRICTS

The boundaries of the Banning and Beaumont Library Districts presently coincide with the respective existing school district boundaries and the Project would be served by both Districts. Both library districts are members of the Inland Library System, which combines the efforts of member districts to locate, deliver, and share resources.

Beaumont Library District

The 12,000 square foot Beaumont Library is located at 125 East 8th Street. The District holds approximately 60,425⁹ volumes. The Beaumont Library District is classified as an Independent

⁹ Email correspondence with Banning Library District on July 6, 2010.

Special District Library by the State. It offers free public internet access, including free wireless connections, as well as computer classes to adults and adult literacy programs. Services to children include an extensive early childhood program and young readers program. Its website offers links to worldwide libraries, literacy programs, and early childhood education programs.

Banning Library District

The Banning Library District is also classified as an Independent Special District Library by the State.¹⁰ The main 9,573 square foot Banning Public Library is located at 21 West Nicolet Street in the City of Banning and houses approximately 57,000 volumes. The 1,300 square foot Cabazon Branch library is located at 50171 Ramona Street in Cabazon and has approximately 4,000 volumes. The District provides internet access, English as a Second Language (ESL) services, adult literacy class, and a range of children's services and materials. Its website provides access to language learning programs, learning aides and courses, and online reference and databases. Although it is not a part of the Riverside County library system, it has computer access to library catalogs for all libraries within Riverside County.

Service Standards

Neither the Beaumont nor Banning Library Districts have an adopted library service standard. County of Riverside seeks to maintain a standard of two volumes and 0.5 square feet (sf) of library space per capita, which is consistent with the State standard. Based on the estimated General Plan buildout population and the State/County level of service standards, Banning and its SOI would require approximately 41,165 square feet of library space and approximately 164,066 volumes at General Plan buildout. The available library space and number of volumes available in the combined Banning and Beaumont facilities and Districts fall below the identified minimum standard. In 2006 the Beaumont District completed a Space Needs Assessment Study and Facilities Plan, which determined that the existing library facility is inadequate for serving the District's population and recommending the construction of a 44,880 square foot replacement library.

Library Facilities Revenue Sources

Libraries rely on a variety of federal, State, and local funding sources, as well as private contributions. The Banning Library District's revenue is largely from property taxes and supplemented by investment income, fees, fines, grants, and donations. The District's revenues have exceeded its expenditures by approximately \$100,000 to \$200,000 for the past 10 years. Ninety five (95) percent of the Beaumont Library District's funding comes from local property taxes. Its revenue also has exceeded expenses by \$25,000 - \$130,000 over the past decade.¹¹

¹⁰ California Public Library Organization, Appendix A, 2007,
<http://www.library.ca.gov/lids/docs/CAPubLibOrgRpt.pdf>, accessed 8/23/2010.

¹¹ Riverside County LAFCO, Central Valley/Pass/Southwestern Riverside County Municipal Services Review 2006.

Federal funds come primarily in the form of grants to individual libraries that meet specified criteria. At the State level, the Public Library Fund (PLF) provides per capita allocations to public libraries and the California Library Services Act (CLSA) provides partial reimbursements for direct and interlibrary loans. Neither the City of Banning nor the City of Beaumont imposes a library facility impact fee, though the Banning Library District is considering the imposition of such a fee and retained a financial planning consultant to prepare a residential development impact fee justification study in 2006. Based on that study, the District has determined that any facilities objectives that include new construction will not be possible without additional funding.¹²

HEALTH CARE SERVICES

San Gorgonio Memorial Hospital (SGMH) is located at 600 North Highland Springs Avenue, immediately south of the Project at the corner of Highland Springs Avenue and Wilson Street. The hospital provides medical services to the cities of Banning and Beaumont. Currently, SGMH can serve up to 100,000 people annually. The total square footage of the hospital is expected to grow from its current 86,502 square feet to 274,843 square feet in 2014 as part of a facilities expansion program initiated to meet anticipated demand and current seismic codes. The proposed expansion is expected to serve a projected population of 225,000 people by 2025.¹³

RECREATION AND PARKS

Park and recreation services would be provided to the Project by the City of Banning Community Services Department. Park classifications within the City of Banning include: (1) tot lots, mini parks, pocket parks and plazas ranging in size from 0.5 acres – 3 acres; (2) neighborhood parks located within walking or bicycle distance of residences and ranging in size from 5 – 10 acres; (3) school parks built adjacent to but separate from educational facilities; (4) community parks that range in size from 20 – 50 acres designed to serve an area within a 5-mile radius of the park; (5) regional parks that are at least 50 acres in size and serve the entire City or region; and (6) special use parks linked to a specific activity, such as a skate park. The City currently collects a Parkland Impact Fee in the amount of \$1,955 per single family detached unit, \$1,485 per townhouse/duplex unit, \$2,168 per multi-family unit, and \$1,233 per commercial/industrial acre. The fee is assessed on new construction and is collected either at building permit or prior to issuance of certificate of occupancy.

Existing Public Parks and Programs

The City of Banning has seven developed parks totaling 66.67 acres, and owns additional 170 acres of undeveloped property, the majority of which has been planned for development as

¹² Ibid.

¹³ http://www.sgmhf.org/getpage.php?name=hospital_expansion, accessed October 4, 2010.

Smith Creek Ranch Park. Riverside County owns the 160-acre Gilman Historic Ranch and Wagon Museum, located in the City of Banning. This regional park includes a historic ranch house, wagon museum, hiking trails, and open space. The City also owns and operates specialized recreational facilities such as the City's Community Center and Senior Center, Municipal Swimming Pool, and Skate Park located at Repplier Park. In addition, the City has an established Joint Use Agreement with the Banning Unified School District that allows the City to utilize some of the District's school campus facilities.

Parks and Recreation Master Plan

In 2010 the City prepared a Draft Master Plan for Recreation and Parks, which was adopted in January 2011. The Plan indicates that the City currently has a deficit of 75 acres of parkland and projects a deficit of 171 acres by 2020, based on the City's standard of 5 acres per 1,000 residents and projected population growth, if no additional park acreage is added to the City's inventory. The top priority recreation needs identified in the Draft Master Plan include trails, a dog park, sporting fields, picnic areas, and an equestrian center. Neighborhood parks are considered the most-critical target for development on the west side of Banning. The need for an additional Community Center/Senior Center and/or Teen/Youth Center in the western portion of the City is also identified as a mid-term project. The Master Plan has identified the Butterfield Specific Plan Project area as a potential location for future parks and further identifies the area north of I-10 and west of Highland Home Road as a "Gap Area" (i.e., an area where the ideal 0.5 mile service area radius for a neighborhood park has not been met). The development of the Butterfield Specific Plan is expected to address neighborhood park deficiencies in the identified western Gap Area, including the potential provision of a site for a new Community Center in Planning Area 15 in proximity to the Edison easement.

Bikeways and Trails

Bikeways, trails and pathways are also considered an important recreational resource by the City. While there are no bikeways within the City, several Class II and III bikeways have been proposed. Class II bikeways are signed and striped bicycle lanes within the paved right-of-way of a street. Class III bikeways are designated but unmarked bike routes that are located on the street amidst vehicular traffic.

Hiking trails are maintained in both the San Bernardino National Forest and the San Jacinto Mountains within the City's Sphere of Influence (SOI). A proposed trail system is shown in the Draft Master Plan that would provide establish trail head access to the proposed regional trail system from parks, city streets and the surrounding community. Two regional trails are planned or proposed through portions of the northern and eastern planning area, in conjunction with the MSHCP.

ENERGY**Electricity**

Banning's Electric Department is located at 176 East Lincoln Street. The City-owned utility procures the majority of its electricity through contracts with the Southern California Public Power Authority.¹⁴ These contracts include participation in the San Juan coal plant, the Palo Verde nuclear plant, and the Hoover Hydroelectric Uploading Project. The City covers its summer peak load requirements through power purchases in the Western System Power Pool (WSPP) Forward and Over-the-Counter markets. The City has an agreement with Southern California Edison (SCE) to utilize SCE's subtransmission system to bring Banning's power from the California ISO controlled high voltage transmission grid to Banning's distribution system at the Banning Substation. At the present time, the Utility's load is divided between various customer classes; residential uses account of 47 percent of the total demand for electricity, followed by commercial uses at 45 percent. The City's General Plan EIR utilized the electrical consumption rates provided by the South Coast AQMD in calculating electrical consumption for General Plan buildout; however, this EIR utilizes more current usage data provided by the City of Banning Electric Department, which is specific to the City, for its analysis.¹⁵ Those usage rates by land use category are shown in Table 4.12-4.

**Table 4.12-4
Estimated Electricity Usage Rates**

Land Use	Annual Usage Rate	Project Utilization
Residential ¹ (5,387 du)	6,460 Kilowatt-hour/unit/year	34,800.020 kWh/year
Retail Commercial ¹ (549,000 sf)	27.8 Kilowatt-hour/square foot/year	15,262,200 kWh/year
Schools ¹ (500,000 sf)	2.5 Kilowatt-hour/square foot/year	1,200,000 kWh/year
Waste Water Treatment Plant ² 2 mgd capacity	1,541 Kilowatt-hour/million gallons/day	1,124,930 kWh/year
Golf Course ³		300,000 kWh/year
Source: ¹ Provided by City of Banning Utility Department, 2011; WWTP Electrical Usage for WWTP from Water Supply & Sustainability: US Electricity Consumption for Water Supply and Treatment 2002 ¹⁶ . ³ Electical Usage for Golf Course estimated based on data from GCSAA, 2011		

¹⁴ The Southern California Public Power Authority (SCPPA) is a Joint Powers Authority formed under the Joint Powers Act of 1980 and is comprised of 12 public power agency members including 11 cities. The SCPPA finances the construction or acquisition of power plants and transmission lines, issues tax-exempt revenue bonds and has financed 4 generation projects, 3 transmission projects, 3 natural gas projects and 4 renewable energy projects.

¹⁵ Electricity Usage Rate Factors provided by the City of Banning Electric Department by Fred Mason and Cornello Datuin – emails 3.21.11 based on 2009-2010 usage rates.

¹⁶ *Water Supply and Sustainability: U.S. Electricity Consumption for Water Supply & Treatment – the Next Half Century*, EPRI, Palo Alto, CA: 2000. 1006787. askepri@epri.com accessed 3/22/11

According to the General Plan EIR, the Plan's buildout is anticipated to generate electrical consumption of about 424,637,277 kilowatt-hours (kWh) per year. This estimate was based on both then-existing and planned future development within the General Plan study area and included the approved Deutsch Specific Plan. Based on usage rates shown in Table 4.12-4 above, the proposed Project would demand approximately 52,687,150 kWh/year, or approximately 13 percent of the total projected consumption annual Citywide consumption. The General Plan EIR concluded that with incorporation of energy-efficient measures into new buildings and compliance with then-existing federal and State energy conservation measures, buildout of the General Plan would not have a significant adverse impact on the availability of electricity or the ability of the City's utility company to provide it, although the General Plan also assumed that the provision of sufficient energy at Plan buildout would require acquisition of additional generating capacity.

Since the adoption of the General Plan, the City has taken several steps to both expand its generating capacity and reduce the carbon footprint of its energy use. In March, 2004, the City adopted a *Renewables Portfolio Standard* (RPS) pursuant to the provisions of Senate Bill 1078, which includes a commitment to obtain 20 percent of its electricity requirement from renewable resources by December 31, 2017. At present, 21 percent of the City's electricity requirements are met by energy generated by renewable sources. In 2007 the City increased its commitment from 20 to 33 percent by December 2020

The City has also adopted a 10-Year (2004 – 2014) Electric System Master Plan. This Master Plan included the projected needs of the proposed Project (i.e., the then-titled Deutsch Project).¹⁷ To meet the needs of the Project area and adjacent development the Master Plan proposed to construct a new 34-12kV "Sunset Substation" near the existing SCE transmission line adjacent to the northern border of the Project. The City purchased land from Pardee Homes and constructed this substation, which was placed in service in March 2009, preparing separate CEQA documentation.¹⁸ This new substation occupies PA70 but it is not addressed as part of the Butterfield Specific Plan project EIR since no changes to the substation are proposed as part of this Project.

The City collects approximately \$310/Dwelling Unit (DU) in energy metering and conservation fees. In addition, the City's impact fee list includes a \$45 per unit fee for energy conservation and \$1,800 per unit fee for new electric service. Energy conservation fees are collected quarterly from customers. The new electrical services fee is collected prior to meter installation.

¹⁷ City of Banning, 10 Year Electric System Master Plan 2004-2014, December 2004, Section 1, Exhibit 1-2 Proposed Developments for the City of Banning, City of Banning Development Projects Table, <http://www.ci.banning.ca.us/DocumentView.aspx?DID=597>, accessed 9/3/2010.

¹⁸ An electrical substation is a subsidiary station of an electricity generation, transmission and distribution system where voltage is transformed from high to low or the reverse, using transformers.

Natural Gas

The Southern California Gas Company provides natural gas services and facilities to the City of Banning. Approximately 86.5 percent of the natural gas supply is imported from Texas and is transported by three major east-west trending high pressure natural gas pipelines, one of which traverses the Project site. The Banning General Plan estimates that the typical residential energy user utilizes approximately 80,000 cubic feet of natural gas per unit per year, while commercial users utilize approximately 35 cubic feet of natural gas per square foot per year.

COMMUNICATIONS

Telephone Service

Verizon California provides telephone service in the City. Presently, there is no local Verizon customer service center located in the City of Banning; however, online account management is available to Banning customers and one central switching office is located within the Project vicinity at 160 West Hayes.

Cable Service

Cable television services are provided to the City of Banning by Time Warner Cable through a franchise agreement.

Internet Service

City residents have many options when choosing an internet service provider. Both Verizon and Time Warner offer high-speed DSL and Cable-Modem services.

Cellular Phone Service

Cellular phone service in the City of Banning is offered by a growing list of cellular phone providers. Cellular phone service companies are licensed and regulated by the State of California Public Utilities Commission (PUC).

WASTEWATER AND RECYCLED WATER

Sanitary Sewer System

Sanitary wastewater (sewer) services are provided to approximately 12,800 service connections by the City's Water and Wastewater Utility. The City owns and maintains gravity sewer mains

ranging in size from 8 inches to greater than 18 inches in diameter, four sewer lift stations, and several sewer force mains located within City owned public right-of-ways.

Wastewater Treatment

Wastewater is treated at the City's wastewater treatment plant (WWTP) located at 2242 East Charles Street, which is operated and maintained by United Water Service pursuant to a City contract. The plant's headworks are designed for an ultimate capacity of 7.8 million gallons per day (mgd). Future expansion of the treatment facility to an 8.2 mgd capacity is anticipated in the City's *Sewer System Study (2006)*. Currently, the plant receives an average flow of approximately 2.5 mgd and is permitted for 3.6 mgd by the Regional Board.¹⁹

The City of Banning operates its wastewater treatment and wastewater collection and disposal systems pursuant to the requirements of Order No. 01-022 (CRBRWQCB), which deals specifically with the system's standards of operation. In addition, the City is covered by Order 01-077 NPDES No. CAS617002 Permit and Waste Discharge requirements, which among other things prohibits acceptance of waste in excess of the disposal system's design treatment capacity. Effluent limitations are shown in Table 4.12-5.

Table 4.12-5
Effluent Limitations Pursuant to Order No. 01-022

Constituent	Unit	30-Day Mean Discharge Rate²⁰	7-Day Mean Discharge Rate²¹	Maximum
20°C BOD ₅ ²²	mg/L ²³	30	45	
Total Suspended Solids	mg/L	30	45	
Aluminum	mg/L	---	----	1.0
Iron	mg/L	----	----	0.3
Chloride	mg/L	40	80	

¹⁹ City of Banning Water/Wastewater Utilities Department, Initial Study/Mitigated Negative Declaration, Wastewater Treatment Plant Expansion and Phase 1 Recycled Water System, May 2008, <http://banning.ca.us/DocumentView.aspx?DID=473>, accessed 9/7/2010.

²⁰ 30-day Mean – The arithmetic mean of pollutant parameter values of samples collected in a period of 30 consecutive days as specified in the Monitoring and Reporting Program.

²¹ 7 Day Mean – The arithmetic mean of pollutant parameter values of samples collected in a period of 7 consecutive days as specified in the Monitoring and Reporting Program.

²² BOD – Biochemical Oxygen Demand.

²³ mg/L – milligrams per Liter.

To date, the City's wastewater treatment plant has met these specifications and criteria and there is no record of violations.

Improvements to the City's main wastewater treatment plant would be required to expand volume capacity needed to meet the needs of City of Banning at build out of the General Plan as well as to upgrade the plant to provide tertiary treatment of wastewater for recycled water distribution. Plant improvements have been planned by the City and are part of the City's adopted Capital Improvement Program (CIP).

Recycled Water

Currently the City treats wastewater to a secondary standard prior to discharge. It does not presently have the treatment capabilities or infrastructure to provide tertiary treated recycled water; however, the City is currently moving forward to complete a 1.5 million gallon per day (mgd) tertiary treatment upgrade of its main plant to produce recycled water that can be used for landscape irrigation pursuant to current State standards as a first step in increasing its recycled water capacity. Among the potential future users of recycled water is the Pardee Homes Butterfield Specific Plan Project.²⁴ The City has completed plans for the upgrade of the treatment facility and approved a Mitigated Negative Declaration (MND) in 2008. The Banning draft *Recycled Water Master Plan (2006)* estimates that recycled water demand in the City could total up to 5.0 mgd in the future, requiring further expansions of the City's wastewater treatment capabilities. As an option to the use of recycled water from the upgraded City WWTP, the Project has proposed to construct an on-site satellite WWTP to serve its needs. The optional on-site WWTP would have a capacity ranging from 1.7 to 2 mgd; refer to Section 4.14, *Water Supply* for a more detailed discussion of recycled water as it pertains to the proposed Project.

Service Projections and Rates

The City's growth forecast, contained in the City's 2010 Water and Wastewater Rates Study,²⁵ indicates that the City lost approximately 780 Equivalent Dwelling Units (EDUs) or active connections to the water system in 2009 and projects that the City will not return to pre-2009 EDU connection levels until 2012. The reduction in active water connections would also translate into a reduction of wastewater generation.

²⁴ Butterfield Specific Plan - Related Projects.

²⁵ Rafeus Financial Consultants, Inc., City of Banning Water and Wastewater Rate Study Report, June 9, 2010, <http://banning.ca.us/DocumentView.aspx?DID=735>, accessed 9/7/2010.

SOLID WASTE

The City of Banning Public Works Department is responsible for the management of solid waste activities in the City. It contracts with Waste Management Inland Empire for solid waste collection and disposal services. Waste Management provides separate containers to residential users for trash, recycling, and green waste. Waste Management also provides free pickup of used motor oil, and electronic waste. Household hazardous waste is not collected by Waste Management IE.

City Generation Rates

Approximately 5,390.32 tons of solid waste, generated in the City of Banning, were disposed of in landfills during the first quarter of 2010. In 2006, the most current year for which CalRecycle data is available, the City disposed of 30,493 tons of solid waste from all sources.²⁶ Approximately 35 percent of the City's solid waste is generated by residential uses; 65 percent is generated by non-residential uses.²⁷ The largest components for household waste and business waste consist of organic materials, including food waste and paper.

Landfills

The City disposes of its waste in three regional landfills: Badlands, El Sobrante, and Lamb Canyon. Badlands and Lamb Canyon are County-owned and operated. El Sobrante is owned and operated by Waste Management IE. Table 4.12-6 provides the location, size and capacity of these landfills and details tonnage and destination of the City's solid waste.²⁸

²⁶ California Integrated Waste Management Board *Jurisdictional Disposal and Alternative Daily Cover Tons by Facility, Single year Countywide Origin Detail* as shown in the *Riverside Countywide Integrated Waste Management Final 2008 Five-Year Review Report*, May 2009, Table 4, pp 11.

²⁷ Ibid. Table 1 – Sources of Generation, pp 6.

²⁸ County of Riverside Waste Management Department – State Jurisdictional Tonnage Report (2009)

**Table 4.12-6
Landfills Serving the City of Banning**

Landfill	Location	Permitted Disposal Area	Capacity (cubic yards)	Permitted Daily Maximum (tons per day)	Estimated Remaining Capacity (cubic yards)	Estimated Closure	Tonnage Disposed of by the City (2009 Tonnage Report)	Percentage of Total Banning Waste at Landfill
Lamb Canyon ²⁹	Beaumont, CA	145 acres	34,292,000	3,000	18,955,000	2021	17,336	70 %
El Sobrante ³⁰	Corona, CA	485 acres	184,930,000	16,054	145,530,00	2045	7,264	29.5%
Badlands	Moreno Valley, CA	150 acres	30,386,332	4,000	19,477,616	2016	35.76	0.5%
						TOTAL	24,636	100%

Source: Landfill Profiles – Cal Recycle.

Non-disposal Facilities – Diverted Waste

Pursuant to State requirements, each jurisdiction in the County has a diversion requirement of 50 percent for year 2000 and each year thereafter. The City's diversion rate in 2006 was approximately 53 percent. Several non-disposal facilities handle City-generated diverted waste. These include the Synagro Biosolids Compost Facility, the Perris Transfer Station/Materials Recovery Facility, the Moreno Valley Transfer Station, and the Mid-County Transfer Station/Materials Recovery Facility. In January 2011, the City amended Chapter 15.08 of its Municipal Code to, among other things, adopt the 2010 California Green Code, which imposes a mandatory 50 percent construction waste diversion requirement on most new construction and requires preparation of a Waste Management Plan prior to the issuance of building permits.

²⁹ Active Landfills Profile for Lamb Canyon Sanitary Landfill ((33-AA-0007)
<http://www.calrecycle.ca.gov/profiles/Facility/Landfill/LFProfile1.asp?COID=33&FACID=33-AA-0007>, accessed 9/8/2010.

³⁰ Active Landfills Profile for El Sobrante Landfill (33-AA-0217)
<http://www.calrecycle.ca.gov/Profiles/Facility/Landfill/LFProfile1.asp?COID=7&FACID=33-AA-0217>, accessed 9/9/2010.

4.12.3 REGULATORY FRAMEWORK

FIRE SERVICES AND FACILITIES

2010 California Fire Code (CFC)

The *California Fire Code* (2010) contains regulations relating to construction and maintenance of buildings, the use of premises, and the management of wildland-urban interface area, among other issues. The CFC also references *Chapter 7A of the 2010 California Building Code* and *Section 313.3 of the 2010 California Residential Code*, which contain specific requirements for fire-safe construction, including the new requirement for installation of fire sprinkler systems in new construction single family and two family dwellings.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the *California Health and Safety Code*, and include regulations concerning building standards as also set forth in the *2010 California Building Code*, *2010 California Residential Code* and related updated Codes.

City of Banning Municipal Code

The Municipal Code contains several chapters dealing with fire protection and fire services. These include Chapter 2.24, *Fire Department*, which authorizes the Fire Department to inspect buildings under construction for compliance with fire code requirements; Chapter 8.16, *Fire Prevention Code*, which was amended in December 2010 to incorporate the 2010 California Fire Code in its entirety; Chapter 10.44, *Emergency Response*, which outlines the City's emergency response cost recovery program; and Chapter 10.72.010, *Fire Facilities Fee*, which establishes a fire facilities developer fee assessed as a condition of building permit for single-family structures. In January 2011, Banning amended its Building Code (MC Chapter 15.08) to adopt the new 2010 California Building Code and 2010 California Residential Code in their entirety.

Also refer to Section 4.8, *Hazards and Hazardous Materials, Regulatory Framework*, for laws and regulations related to wildfire and development in Wildland-Urban Interface (WUI) zones.

POLICE SERVICES AND FACILITIES

City of Banning Municipal Code

The Municipal Code contains three chapters that deal directly with the provision of police protection services. These include Chapter 2.52, *Peace Officer and Public Safety Dispatcher Standards of Training Fire*, which obligates the city to adhere to the standards for recruitment and

training established by the California Commission of Peace Officer Standards and Training; and Chapter 15.72.020, *Police Facilities Fee*, which establishes a police facilities developer fee. The police facilities developer fee applies to construction of any new single-family residential structure on an unimproved lot or unimproved parcel.

PUBLIC SCHOOL SERVICES AND FACILITIES

California State Assembly Bill 2926 (AB 2926) – School Facilities Act of 1986

In 1986, AB 2926 added Section 65995 to the *California Government Code* and authorized school districts to collect development fees based on demonstrated need to generate revenue for capital acquisitions and improvements.

California Senate Bill 50 (SB 50)

SB 50, adopted in 1998, defined the school impact fee “Needs Analysis” process in *Government Code Sections 65995.5-65998*. Pursuant to its provisions, school districts may collect fees to offset the costs associated with increasing school capacity as a result of development. Payment of statutory fee by developers serves as the total mitigation of the potential impact of a development on school facilities pursuant to CEQA.

California Government Code 66478

In *CGC Section 66478*, the legislature allows cities and counties to require the dedication of land for elementary schools.

City of Banning Municipal Code Chapter 3.36 (Fees and Service Charge Revenue)

Chapter 3.36 of the Municipal Code defines school fees as “pass through fees.” The City requires developers to provide a school district-issued Certificate of Compliance, verifying the payment of required fees, prior to issuance of building permits.

LIBRARY SERVICES AND FACILITIES

There are no federal or State policies that are directly applicable to public library services within the Project area. The *California Education Code*, however, includes various provisions authorizing public library organizations, among them: (1) the *Library District Law (Education Code §19400 et seq.)*; (2) the *Municipal Library Law (Education Code §18900 et seq.)*; and (3) the *Union and Unified High School District Library District Law (Education Code §18300 et seq.)*.

HEALTH CARE SERVICES AND FACILITIES

The California Department of Health Care Services and the California Department of Public Health

These State agencies support and regulate the provision of health care services in the State, including the licensing of hospitals and the conduct of periodic inspections and surveys to ensure patient safety and adequate care.

PARKS AND RECREATION PROGRAMS AND FACILITIES

California Government Code 66477 (Quimby Act)

Section 66477 of the *California Government Code*, also known as the *Quimby Act*, provides local governments with the authority to require dedications or in-lieu fees for parkland, as a condition of residential subdivision approval. The statute allows local governments to require dedication of land, a fee payment, or a combination of both, under certain conditions.

City of Banning Municipal Code

The Municipal Code contains several provisions pertaining to Parks and Recreation. Chapter 12.36 contains rules and regulations for the use of the City's park facilities; Chapter 12.40 contains rules and regulations for the operation of the City's skate park; Chapter 15.68 imposes Park and Recreation fees on new residential, commercial, and industrial development for the purpose of funding acquisition, expansion and construction of parks and related public recreational facilities.

ENERGY (ALSO REFER TO SECTION 4.3, AIR QUALITY)

California Code of Regulations (CCR) Title 24

New buildings in California are required to conform to energy conservation standards specified in *Title 24 of the CCR*. The building efficiency standards are enforced through the local building code or individual agency permitting process. The City of Banning requires all new buildings to meet Title 24 standards. As noted in Section 4.3, *Air Quality*, in 2010 the State of California adopted the *California Green Building Code*, also called the CALGreen Code, amending *CCR Title 24, Part 11*. The purpose of the CALGreen Code is to enhance the design and construction of buildings through the use of building design and construction standards that either reduce negative environmental impacts, or have positive environmental impacts and by encouraging sustainable construction practices. The Green Code deals with planning and design; energy

efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. The Code became effective on January 1, 2011.

California Public Utilities Commission (PUC) General Order 131-D

New construction or relocation of existing SCE or Banning Utility electrical facilities that operate at or above 50 kV may have environmental consequences that are subject to CEQA, as implemented by the PUC and any proposed work will require review and potential permitting by the PUC.

City of Banning Municipal Code

The Municipal Code includes various provisions related to energy use and efficiency including Chapter 15.08, which adopts the *Uniform Solar Energy Code* as part of the City's Building Code; Chapter 17.12 – Land Use Development Standards which requires energy efficient lighting in commercial and industrial districts, and Chapter 17.08 which requires the use of energy efficient lighting in residential districts. On January 11, 2011, the City amended Section 15.08 of the Municipal Code to adopt the *2010 California Green Code*, among other revisions to its Building Code.

WASTEWATER AND RECYCLED WATER (ALSO REFER TO SECTION 4.14, WATER SUPPLY)

National Pollution Discharge Elimination System (NPDES) Permits

The NPDES permit system was established as part of the *Clean Water Act* (CWA) to regulate discharges from all point sources. Section 402(d) of the CWA establishes a framework for regulating nonpoint source (NPS) storm water discharges under the NPDES permit program. For point source discharges, such as sewer outfalls, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

State of California Water Recycling Act

Enacted in 1991, the *Water Recycling Act* established water recycling as a priority in the State. The Act encourages municipal wastewater treatment districts to implement recycling programs to reduce local water demands.

California Code of Regulations, Title 22, Division 4, Chapter 3 Water Recycling Criteria

The wastewater treatment process and the use of recycled water is regulated by the State of California pursuant to the *California Code of Regulations, Title 22, Division 4, Chapter 3, Water Recycling Criteria*. According to these regulations, recycled water to be used for irrigation of public areas must be filtered and disinfected to tertiary standards.

Regional Water Quality Board (RWQCB)

NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in the discharge of each facility of property. The City of Banning operates its wastewater treatment plant and wastewater collection and disposal systems pursuant to the requirements of Order No 01-022, issued by the RWQCB – Colorado River Basin Region.³¹

In addition, the City's wastewater treatment facility is covered by Order 01-077, NPDES No CAS617002, NPDES Permit and Waste Discharge Requirements for discharges of treated wastewater in the Whitewater River watershed. Water quality issues and associated regulatory permitting as it relates to other discharges is discussed in Section 4.9, *Hydrology and Water Quality*.

City of Banning Municipal Code Ordinance Nos. 1294 and 1321

The Municipal Code includes provisions for the assessment and collection of sewer connection fees and sewer frontage fees. The City also assesses a surcharge as part of its user fees to cover the cost of expanding conveyance, treatment and disposal facilities

SOLID WASTE

AB 939 – California Integrated Waste Management Act of 1989

The *California Integrated Waste Management Act of 1989* (AB 939) requires all California cities and counties to achieve a 50% diversion rate by 2000. The *Riverside Countywide Integrated Waste Management Plan* (CIWMP) outlines the goals, policies, and programs the County and its cities will implement to create an integrated and cost effective waste management system that complies with the provisions of AB 939 and its diversion mandates. Additional statutes

³¹ California RWQCB – Colorado River Basin Region, Order No. 01-022, http://waterboards.ca.gov/coloradoriver/board_decisions/adopted_orders/orders/2001/01_022wdr.pdf, accessed 9/7/2010.

pertaining to solid waste are found in *California's Public Resources Code, Government Code, and Health and Safety Code*, among others.

SB 1374, passed in 2002, requires that the annual report submitted to County Integrated Waste Management Board (CIWMB) also include a summary of the progress made in diverting construction and demolition waste materials. In addition, SB 1374 required the CIWMB to adopt a model ordinance suitable for adoption by a local agency, requiring 50 to 75 percent diversion of construction and demolition waste materials to landfills. Initially, local agencies were required to adopt the State's model diversion ordinance, but that requirement was dropped and the diversion program was made voluntary in the absence of a local waste diversion ordinance. Subsequent adoption of the *2010 California Green Code*, which became effective statewide on January 1, 2011, and has been incorporated into the City's Municipal Code, mandates the diversion of 50 percent of construction material waste and requires new development projects to submit a Construction Waste Management Plan prior to issuance of building permits.

The *California Solid Waste Reuse and Recycling Access Act of 1991*, as amended, requires each development project to provide an adequate storage area for collection and removal of recyclable materials.

City of Banning Municipal Code – Chapters 8.28 (Garbage Collection); 8.53 (Recycling); 8.64 (Waste Tires)

Solid waste is addressed in the City's Municipal Code as part of Title 8, *Health and Safety*. Chapter 8.53 allows the City to divert 50 percent of solid waste through increased recycling of reusable materials and to require that space in certain development projects be set aside to make future on-site composting projects possible. The Chapter 8.52.040 includes guidelines for all development projects.

City of Banning Municipal Code – Chapter 15.08 (Building Code – Construction Waste Diversion)

In January 2011 the City amended its Building Code and adopted the *2010 California Green Code*, which requires the development of a waste management plan and the diversion of 50 percent of construction waste materials generated by a new construction project. The requirement applies to developments that include low-rise residential (i.e., three stories or less) and most non-residential occupancies.

CITY OF BANNING GENERAL PLAN POLICIES

Police and Fire Services Element – Fire Services

- Policy 1: The City shall work closely with the Fire and Police departments to assure that adequate facilities are constructed and service is provided as development and growth occur to maintain and enhance levels of service and insurance ratings.
- Policy 2: The City shall review all proposals for new or significant remodeling projects for potential impacts concerning public safety.
- Policy 3: The City shall strictly enforce fire standards and regulations in the course of reviewing development and building plans and conducting building inspections of large multiple family projects, community buildings, commercial structures and motel structures.
- Policy 4: All proposed development projects shall demonstrate the availability of adequate fire flows prior to approval.
- Policy 8: The Police and the Fire Departments shall closely coordinate and cooperate with the City and County emergency preparedness teams and shall assure the most effective emergency response practical.
- Policy 9: The Fire Department shall maintain a 5-minute response time.
- Policy 11: The Fire Department Ambulance Services shall maintain a 5-minute response time.
- Policy 14: The City shall pursue all funding mechanisms to fund the need for police and fire services generated by new development.

The General Plan EIR also imposes mitigation measures to ensure the adequacy of fire protection services for the City. These include:

- A. The City shall assure the timely expansion of fire protection services and facilities necessary to serve the City's population.
- B. The Fire Department shall continue to review new development proposals and evaluate the Department's capacity to provide sufficient fire protection services. This shall include, but is not limited to, review of internal circulation patterns, street names and numbering systems.

- C. The City shall routinely review and modify its structural fire assessment fees, as necessary, to ensure that these funds are adequate to cover annual operating costs.
- D. The City and the Fire Department shall continue to enforce fire codes and other applicable standards and regulations in the course of reviewing development and building plans and conducting building inspections.
- E. Through its development review and approval process, the City shall ensure that siting of industrial facilities, which involve storage of hazardous, flammable or explosive materials, shall be conducted in a manner that will ensure the highest level of safety in strict conformance with the Uniform Fire Code and other applicable regulations.

Police and Fire Services Element – Police Services

- Policy 2: The City shall review all proposals for new or significant remodeling projects for potential impacts concerning public safety.
- Policy 5: Crime prevention design techniques, including the use of “defensible space,” high security hardware, optimal site planning and building orientation, and other design approaches to enhance security shall be incorporated in new and substantially remodeled development.
- Policy 6: The City shall continue to support and promote community-based crime prevention programs as an important augmentation to the provision of professional police protection services.

The General Plan EIR also imposes mitigation measures to ensure the adequacy of police protection services for the City. These include:

- A. The City shall require all development proposals to be reviewed by the Police Department. Comments will be incorporated into project design or conditions of approval, as deemed appropriate.
- B. The City shall consult and coordinate with the Police Department regarding the optimal location of future police stations, so as to assure that adequate staffing levels are provided to meet the demands of the City.
- C. The City shall promote the utilization of crime prevention measures in project planning that result in “defensible space” as a means of providing security in residential, commercial, and industrial development.

- D. The City shall continue to promote and support community-based crime prevention programs as an important augmentation to the provision of professional police protection services.
- E. The City shall periodically review the level, quality, innovation, and cost-effectiveness of police protection services, including contract services, and shall remain flexible when considering the most effective means of providing these services to the community.
- F. The City Police Department shall monitor calls in the General Plan Study Area. The City shall review response times and Police Department activity to assure adequate levels of protection.

Schools and Library Element – Public School Services

- Policy 1: Assist, cooperate and coordinate with the Banning and Beaumont Unified School Districts and state agencies in identifying, acquiring and developing school sites needed to meet future growth demands. Encourage the selection of potential school sites that are centrally located in areas of existing or future residential development.
- Policy 2: Continue to work with the Banning Unified School District to amend the District's boundary to encompass all lands within its corporate limits and sphere of influence.
- Policy 3: Schools and libraries shall be protected for excessive noise and traffic conditions, incompatible land uses, and the threat of on-site disturbances to the greatest extent practicable.
- Policy 4: The City shall cooperate in securing school impact fees from developers, in accordance with State law.
- Policy 5: The City shall proactively work with the Banning Unified School District to improve the level and quality of education whenever possible.
- Public Facilities Element Policy 6: Critical structures and facilities (including the civic center, hospitals, fire stations, police stations, schools, and major communication facilities shall be restricted from geologically and hydrologically hazardous areas.

The General Plan EIR also imposes mitigation measures to ensure the adequacy of educational facilities. These include:

- A. Developers shall continue to be assessed the statutory school mitigation fees for residential and commercial development.
- B. In the event that developers in the General Plan Study Area utilize Mello-Roos or other type of public facilities financing districts, Banning Unified School District and Beaumont Unified School District shall participate in the discussion of how the developer may cooperate with the District in its funding mechanism.

Schools and Library Element – Library Services

- Policy 10: The City will encourage the Library Board to confer and coordinate with Mt. San Jacinto College to explore the provision of library services, and cooperative efforts with the Banning Public Library in conjunction with the proposed MSJC Education Center.
- Policy 11: The City shall coordinate with the Banning Public Library to assure that adequate library space, services, and resources are provided to meet the educational and literary needs of the community.
- Policy 12: Recognizing the importance of the library system for educational and cultural development within the community, the city shall explore the need for and feasibility of expanded library facilities and resources, including the potential for and appropriateness of accessing on-line resources associated with the Riverside County library system.

The General Plan EIR also imposes mitigation measures to ensure the adequacy of library facilities. These include:

- A. The City and County shall continue to monitor and assess the existing usage rate and level of service provided at the libraries in the General Plan Study Area to determine the need for additional services and facilities.
- B. The City shall consult and coordinate with Riverside County to determine appropriate mitigation fees necessary to provide adequate library services.
- C. The City shall explore the need for and feasibility of expanded library facilities and resources, including the potential for and appropriateness of accessing on-line resources associated with the Riverside County library system.

Health Services Policies

The City of Banning's General Plan includes the following policies related to health care services and specifically, to hospital (critical structures) facilities:

- Policy 6: Critical structures and facilities (including the civic center, hospitals, police stations, schools, and major communication facilities) shall be restricted from geologically and hydrologically hazardous areas.

The General Plan EIR does not require any mitigation measures for health care services.

Parks and Recreation Element

- Goal 1: Provide a high quality public park system with adequate land and facilities to provide recreational facilities and activities for the City's residents.
- Goal 2: Provide a comprehensive bikeway, trail and walking path system that connects homes to work places, commercial venues and recreational facilities, and which enhances the safety and enjoyment of cyclists, equestrians, and pedestrians.
- Policy 1: Update the Master Parks and Recreation Plan so as to assure adequate parklands and facilities that meet the immediate and future needs of the community and is complementary to the natural environment.
- Policy 2: The City will distribute parks and recreation facilities in a manner that is convenient to City neighborhoods and balanced within population concentrations.
- Policy 3: Require developers of new residential projects to provide on-site recreational and/or open space facilities in addition to City-wide park requirements.
- Policy 5: The City shall consider alternative methods of providing park and recreational amenities to meet future population demands.
- Policy 6: The City shall develop and implement plans for a coordinated and connected bicycle lane network in the community that allows for safe use of bicycles on City streets.
- Policy 7: The City should continue to work with the Morongo Band of Mission Indians and neighboring cities and communities to create a regional bicycle and trail network.

- Policy 8: The City shall provide for a comprehensive, interconnected recreational trails system suitable for bicycles, equestrians and/or pedestrians.

The General Plan EIR does not propose any mitigation measures regarding parks and recreation.

Public Services Element - Energy

- Goal 1: Efficient, sustainable, and environmentally appropriate use and management of energy to ensure long-term availability and affordability.
- Policy 1: Promote energy conservation throughout all areas of the community and all sectors of the economy including planning and construction of urban uses.
- Policy 3: Proactively support long-term strategies that assure affordable and reliable production and delivery of electrical power to the community.
- Policy 5: To ensure the timely expansion of facilities in a manner that minimizes environmental impacts and disturbance of existing improvements, the City shall confer and coordinate with service and utility providers in planning, designing and siting of supporting and distribution facilities.
- Policy 6: The City shall proactively support the widespread integration of energy resource conserving technologies throughout the community.
- Policy 9: Utility lines on scenic roadways, major streets and in the downtown shall have primary consideration for undergrounding.
- Policy 10: Major utility facilities, including power and other transmission towers, cellular communication towers and other viewshed intrusions shall be designed and sited to ensure minimal environmental and viewsheds impacts and environmental hazards.

The General Plan EIR includes the following mitigation measures related to energy:

- A. Developers shall coordinate and cooperate with the Banning Public Works Department and Banning Electric Department in implementing local management programs that reduce demands on generating capacities.
- B. All proposed developments shall comply with the requirements of the Uniform Building Code and Title 24 of the California Code of Regulations.

- C. Project developers shall be required to utilize energy efficient design to minimize solar gains and reduce air conditioning loads.
- D. The use of energy efficient lighting fixtures in developments within the General Plan Study area will be required.

Public Services Element – Telecommunications

- Policy 11: The City shall encourage the planning, development and installation of state-of-the art telecommunications and other broadband communications systems as essential infrastructure.
- Policy 13: The City shall investigate lower cable rates for ungated neighborhoods.

Public Services Element - Wastewater Systems and Recycled Water

- Goal 1: A comprehensive range of water, wastewater and utility services and facilities that adequately, cost-effectively, and safely meet the immediate and long-term needs of the City.
- Policy 2: Sewer connection shall be required at the time a lot is developed when service is available.
- Policy 3: In the event a sewer line exists in the right-of-way where a for-sale residential unit is served by a septic system, the septic system shall be properly abandoned prior to sale and/or close of escrow, and the unit shall be connected to the sewer system.

The General Plan EIR includes the following mitigation measures related to wastewater services:

- A. All development shall be connected to the City-wide sewer system, to the greatest extent possible.
- B. The City shall investigate and evaluate alternative methods of financing a city-wide sewer system and converting existing septic systems to sewer.
- C. The City and its Utility Department – Sewer Division shall assure that adequate wastewater collection and treatment facilities are provided to serve development in the General Plan Study Area.

- D. The City shall monitor demand for tertiary treated water within the General Plan Study Area and shall investigate the feasibility of providing tertiary treated water as demand warrants.

Public Services Element – Solid Waste

- Policy 7: The City shall continue to confer and coordinate with its solid waste service franchisee to maintain and, if possible, exceed the provision of AB 939 by expanding recycling programs that divert valuable resources from the waste stream and returning these materials to productive use.
- Policy 8: The City shall support, and to the greatest extent practical, shall encourage commercial and industrial businesses to reduce and limit the amount of packaging and potential waste associated with product sale and production.

The General Plan EIR includes the following mitigation measures related to solid waste:

- A. All new development shall establish recycling programs as part of the planning process. Programs shall include recycling provisions for residences as well as for commercial establishments.
- B. Recycling receptacles should be provided to multi-family development.
- C. Recycling provisions for commercial and business establishments should include separate recycling bins. Items to be recycled at commercial establishments may include white paper, computer legal paper, glass and aluminum cans.
- D. As landscaping debris comprises a significant percentage of residential solid waste, developers shall contract for professional landscaping services from companies which compost green waste. On-site composting and grass recycling (whereby lawn clippings are left on the lawn) is also encouraged.
- E. Recycling of construction waste through on-site grinders and the use of wood waste recycling facilities are encouraged, wherever possible.

4.12.4 PROJECT IMPACT AND MITIGATION ANALYSIS

The previously certified Deutsch Specific Plan EIR addressed development of the Project site with up to 5,400 dwelling units. Impacts discussed below are generally consistent with the impacts described in the 1985 Deutsch Specific Plan EIR and subsequent EIR Update in 1993. This analysis has been updated to reflect the currently proposed Butterfield Specific Plan, including the proposed off-site infrastructure and a 21-acre unincorporated parcel. The City's General Plan EIR also provides an analysis of the impacts of the buildout of the General Plan on public services and utilities, which analysis included the Deutsch Specific Plan in its overall assessment of buildout impacts. This EIR analysis is based on review of available documents, including the proposed Butterfield Specific Plan and its associated preliminary tentative tract maps, and also reflects the updating service/utility information based on contacts with affected agencies.

The Butterfield Specific Plan itself reflects input from a various agencies including the Banning and Beaumont School Districts as regards the location of proposed school facilities and boundary issues; City Public Works and Water/Wastewater Department as regards proposed alignments, sizing and design solutions for water supply, wastewater treatment, and the use of recycled water; Southern California Edison as regards the relocation of existing power lines, treatment, and potential use of existing utility easements; the Riverside County Fire Department and Cal Fire regarding the location of a proposed new fire station, fire protection issues and proposed mitigation measures; and with City Community Services regarding the location and development of parks and a potential community center within the SP boundaries.

4.12.4.1 FIRE SERVICES AND FACILITIES

SIGNIFICANCE THRESHOLD CRITERIA

The following threshold of significance is based on Appendix G of the 2010 CEQA *Guidelines*. For the purposes of this EIR, implementation of the proposed Project may result in a potentially significant impact if the proposed Project would:

- a) Result in substantial adverse environmental impacts associated with the provision of new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance standards.

ANALYTIC METHOD

Impacts on fire protection services are considered significant if an increase in population or building area would result in inadequate response times, and/or increased demand for services

that would require construction of new fire protection facilities. The following analysis considers the potential impacts of the proposed Project on the City's objective for response of 5 minutes or less for emergency calls.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing ordinances and regulations described in the Regulatory Framework section will avoid or reduce potential impacts related to fire protection. In addition, the following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) In addition to paying over \$7 million³² in potential City fire facility impact fees, the Project proposes the zoning for a 1.6-acre site for the construction of a new fire station within the Project site, currently designated in the southeast corner of Planning Area 60 though subject to location change, which would substantially improve fire services within and beyond the Project area and place additional resources in closer proximity to wildland areas, helping to reduce the risk associated with wildfire for the entire community.
- 2) The Project will include the construction of three above-ground water storage tanks with a total storage capacity of 3.5 million gallons, the installation of pump stations, and the installation of water mains, laterals, and hydrants sufficient to provide fire flow at required pressure to all portions of the Project.
- 3) The Project will include the construction of an approximate 14-acre multi-use basin within the 30.4-acre PA 71 to detain upstream flows and provide water storage for irrigation and other needs, including emergency water supplies in the event of fire.
- 4) All homes within the Project constructed subsequent to 2011 will include in-house fire protection sprinkler systems per new State regulations, which the City will enforce through its building and occupancy permit process.
- 5) Prior to approval of any final tract map, the applicant shall submit a Fire Response Plan consistent with City Municipal Code and Fire Department regulations to insure full compliance with building codes, fuel modification requirements, provision of irrigation, adequacy of water supply and pressure, adequacy of access and lighting, etc.

Also refer to Project Design Features 1, 2, and 3 in Section 4.8, *Hazards and Hazardous Materials* of the EIR for additional features related to reduction of fire risk in wildland-urban interface areas.

³² For residential units at current prevailing fees of \$1,335/unit, not counting misc. City fees, public improvement fees, plan check fees, and general fund revenue through property and sales tax.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact Analysis 4.12-1: Need for New or Physically Altered Fire Facilities

Threshold: *Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance standards?*

Determination: Less than Significant with Mitigation Incorporated

Implementation of the proposed Project will result in the construction and occupancy of over 5,000 homes, two schools, a golf course and club house, a potential community center, and a retail shopping center. To reduce its impacts on fire services the Specific Plan incorporates a variety of design and land use elements including the irrigation of slopes and fuel modification zones, the provision of adequate water supply and pressure to meet fire code requirements for fire flow, provision of interior sprinkler systems as required by the 2010 CRC and CBC, and the development of a coherent street system with multiple points of access, with streets sized to accommodate emergency vehicles. Section 4.8, *Hazards and Hazardous Materials*, specifically discusses Project design features and mitigation measures that address wildfire hazard as it impacts the Project site. Mitigation measures included in that section are incorporated by reference into this analysis.

Fire response time have been estimated for the Project by accessing and utilizing internet mapping services (such as Google Earth for distance and Yahoo Maps for driving distance & response times from existing fire stations and existing addresses surrounding the Project Site). Based on this analysis, City response time standards can be met for the majority of the Project site located south of Brookside Avenue; however, response time from existing fire stations serving the site to areas north of linear extension of the Brookside Avenue right of way through the Project to Highland Home Road (i.e., PAs 60 and 61) may exceed six minutes. The Fire Department has indicated that additional fire protection services, units, and/or facilities may be needed as development takes place on the Project site in general. To initially address this potential issue, the Specific Plan incorporates a dedicated fire station site proposed to be conceptually located within PA 60, although additional fire facilities adequate to serve this portion of the Project could be provided elsewhere in the Project prior to construction of PA 60 or changes in other requirements and standards could occur during the 30-year implementation phase of the Project that would address this need. The construction of this fire station could be funded by using the over \$7 million in fire facilities impact fees that will be generated by the Project as it develops and/or through a funding generated by a Community Facilities District (CFD). The Project will also generate annual property and sales tax that can be allocated to help support ongoing facility staffing and operation.

In order to ensure that adequate fire services are available to all portions of the Project site with response times that correspond to City standards, Mitigation Measure PSU-1 is required. Mitigation Measure PSU-1 provides for needed flexibility in determining appropriate timing for additional fire services. Also, Mitigation PSU-1 will allow for the Fire Chief to make the decision for the timing, potential need for development, and location of a new fire station within the Project, that is initially conceptually located in PA 60, and/or the provision of additional fire response units or services.

In addition to Mitigation Measure PSU-1, the Project will also address the reduction of wildland fire hazard through the implementation of State and local regulations and Mitigation Measures HAZ-10, HAZ-11, and HAZ-12. The reduction of fire hazard related to the presence of a high pressure natural gas pipeline through the project site would be addressed through the replacement of existing pipeline as provided for in Mitigation Measure HAZ-6, all contained in Section 4.8, *Hazards and Hazardous Materials*, of this EIR. Potential environmental impacts associated with the construction of a fire station within the Project boundaries are addressed as part of the total Project in the various sections of this EIR.

Mitigation Measures

PSU-1 Applicant shall communicate and work with the Fire Chief throughout Project development to determine the appropriate timing for a potential addition of a fire response unit (medic squad, fire engine), or the need for a fire station that is conceptually located in PA 60 but could be located in any Planning Area as described within the Specific Plan. When the fire station or a response unit is determined to be necessary, the Applicant shall fund and/or construct the fire response unit and/or fire station, and would subsequently be credited the cost of the fire response unit or fire station towards the payment of applicable fire fees.

Cumulative Impact on Fire Facilities

Determination: Less than Significant with Mitigation Incorporated

As additional development occurs in the Fire Department's Oak Glen service area there would be an overall increase in the demand for fire protection services, which is expected to result in the need for additional and/or expanded fire protection facilities. In its response to the Project's NOP, Cal Fire stated, "The increase in acreage [represented by] the Butterfield SP will have a cumulative adverse impact on the Fire Department's ability to provide an acceptable level of service using existing facilities, given the projected increase in population and the number and location of new structures." Accordingly, cumulative future development would result in the need for additional facilities. This is a potentially significant cumulative impact. Development of the Butterfield Specific Plan would contribute to the need for additional fire facilities; however, the Project has sufficiently mitigated for its contribution to the cumulative impact by

providing funds and a potential site for the construction of a new fire station to serve both the Specific Plan area and adjacent, yet to be developed neighborhoods.

Level of Significance After Mitigation

Project's impacts on fire facilities would be less than significant with mitigation incorporated.

4.12.4.2 POLICE SERVICES AND FACILITIES

SIGNIFICANCE THRESHOLD CRITERIA

For the purposes of this EIR, implementation of the proposed Project may result in a potentially significant impact if the proposed Project would:

- b) Result in substantial adverse environmental impacts associated with the provision of new or physically altered police protection facilities or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance standards.

ANALYTIC METHOD

The City of Banning has established objectives for staffing levels for the Police Department in its Comprehensive General Plan. The following analysis considers the potential impacts of the proposed development on the City's objective for a level of service equating to 2.0 sworn officers per 1000 population.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing ordinances and regulations noted below will avoid or mitigate potential impacts related to police protection. In addition, the following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) The Project will be developed in phases over a period of up approximately 30 years, which would allow the Department time to respond to any need for additional facilities and/or officers that might be required to serve the Project area, as funding becomes available. The Project will be paying over \$4 million in dedicated Police Facility Fees, in addition to all other fees assessed and Project contributions toward General Fund revenue through property tax and sales tax.

- 2) The majority of the residential development within the Project consists of traditional single-family homes having frontage on public streets. This type of development provides “eyes on the street”, which is the essence of defensible space design, as required by the City’s General Plan.
- 3) Based on meetings with City police officials, the Applicant modified Specific Plan design guidelines and sited school facilities to provide dual vehicle access into and out of all development areas, landscaping along Project perimeter walls to deter graffiti, and has located schools and parks so that they would have adequate street frontage to facilitate police surveillance.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact Analysis 4.12-2: Need for New or Physically Altered Police Facilities

Threshold: *Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered police protection facilities or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance standards?*

Determination: *Less than Significant with Mitigation Incorporated*

The development of 5,387 additional housing units within the Butterfield Specific Plan would result in a population increase of roughly 14,168 persons. Based on the Banning Police Department’s adopted officer-to-resident ratio goal, stated in the General Plan, the Project could generate a demand for as many as 28 additional sworn officers at full build out; however, the need for additional officers to meet the City’s officer-to-resident ratio would occur slowly and incrementally over time. Accordingly, existing facilities, including the new police headquarters building, could remain adequate for the provision of police services to the Project for much of its development period.

To finance any new facilities, or the expansion of existing facilities, the City assesses a Police Facilities Fee on all new development. Payment of this fee, which is adjustable over time as the City determines its facilities needs, insures that each new development pays its “fair share” of the cost of providing the police facilities needed to serve a growing population. Based on the current fee structure, the Project would be contributing over \$4 million in City police fees through Project build-out. In addition, the Project will result in indirect contributions to the City’s General Fund through sales and property taxes and thus provide financial support for expanded police operations.

Policy 5 of the General Plan requires that: “Crime prevention design techniques, including the use of “defensible space,” high security hardware, optimal site planning and building

orientation, and other design approaches to enhance security shall be incorporated in new and substantially remodeled development.” The majority of new residential development within the Project is expected to consist of single-family homes. Research and urban planning principles have established that the close juxtaposition of the street to the private front lawn, even allowing for standard front yard setbacks, and the positioning of living area windows at the front of the home that is typical of single family residential neighborhoods helps residents maintain an “eye on the street” and act to maintain and control its use, thus creating a “defensible space” from a policing perspective.

Multifamily and cluster housing have different challenges in providing “defensible space” and “eyes on the street.” For example, multi-family housing is often oriented to interior courtyards, turning its back on the public domain and taking the eyes of residents off of the street. Other issues include the isolation of vehicular parking from the residential unit, which can compromise security, or the lack of “pubic domain” open space designed to draw residents out of their units so that they can establish relationships with their neighbors and develop a shared sense of community. Accordingly, multi-family housing must be deliberately designed to achieve the same level of public domain security and crime reduction that is more readily available in standard single family residential neighborhoods. Design solutions can include such things as orienting the front doors and living area windows to the public street without providing the “protection” of walls and fencing while providing back doors in these same units that allow access to more secure play areas and open space. Additional design solutions include the clustering of parking in close proximity to units or the provision of enclosed garages or semi-subterranean parking garages that can be secured, the provision of motion activated security lighting, and the clustering of multifamily units around shared courtyard spaces with appropriate amenities that draw residents into the common area and encourage the development of relationships between neighbors through interaction in the “public” domain.

Since the proposed Project includes the development of cluster and/or multifamily housing in addition to single family neighborhoods, Mitigation Measure PSU-2, which requires incorporation of defensible space design elements into the Project’s multi-family and cluster housing developments, will be required to maintain compliance with the General Plan and to facilitate policing of the community. With the payment of the Police Facilities Fee and the implementation of Mitigation Measure PS&U-2, the impact of the Project on police facilities would be reduced to a less than significant level.

Mitigation Measures

PSU-2 The Project shall incorporate the principles of defensible space as defined by the U.S. Department of Housing and Urban Development Office of Policy

Development and Research³³ in the design of cluster housing and/or multifamily housing within the proposed Project to reduce the impact of such development on police services. These principles shall be incorporated through inclusion of the following design solutions:

- Orienting the front doors and living area windows to the public street without providing “protection” of walls and fencing while providing back doors in these same units that allow access to more secure play areas and open space.
- Clustering parking in close proximity to units or the must provide enclosed garages or semi-subterranean parking garages that can be secured.
- Providing motion-activated security lighting.
- Clustering multifamily units around shared courtyard spaces with appropriate amenities that draw residents into the common area and encourage the development of relationships between neighbors through interaction in the public domain.

Cumulative Impacts

Determination: Less than Significant with Mitigation Incorporated

The City General Plan anticipates a need for additional police facilities based a goal of 2.0 sworn officers per 1000 population and the known capacity of then-existing facilities. The City has recently built a new police headquarters building; however, to meet City service ratios at General Plan build out the Police Department would need to hire approximately 80 new sworn officers. The new headquarters building may not be able to accommodate this level of staffing, requiring the provision of additional police facilities. This is a potentially significant cumulative impact. The City assesses a Police Facilities Fee on all new development in the City to fund the construction of new and/or the expansion of existing police facilities needed to address community needs. The fee is based on a calculation of the Project’s “fair share” of the overall cost of providing adequate police facilities to the community. The proposed Project would participate in that program and additionally, would implement Mitigation Measure PSU-2 to ensure incorporation of defensible space design into multifamily and cluster housing to help reduce the need for new officers to adequately police the community. Accordingly, the Project’s impact on police facilities would be less than cumulatively considerable.

³³ See Oscar Newman, *Creating Defensible Space*, 1996, Institute for Community Design Analysis, US Department of Housing and Urban Development, Office of Policy Development and Research for applicable guidelines and design criteria.

Level of Significance After Mitigation

With incorporation of Project Design Features and Mitigation Measure PSU-2, and payment of Police Facilities Fees the Project's impact on police facilities would be less than significant.

4.12.4.3 PUBLIC SCHOOL FACILITIES

SIGNIFICANCE THRESHOLD CRITERIA

Implementation of the proposed Project may result in a potentially significant impact if the proposed Project would:

- a) Result in substantial adverse environmental impacts associated with the provision of new or physically altered school facilities or the need for new or physically altered school facilities.

ANALYTIC METHOD

Each District has identified student generation factors for new development and has published those rates. The generation rates for the Beaumont Unified School District were last modified in 2010 and are lower than those used in the City's General Plan. Since the 2010 generation factors are the most current, those are used in determining the number of students potentially generated by the full buildout of the proposed Project.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing ordinances and regulations noted below will avoid or mitigate potential impacts related to school facilities. In addition, the following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) In addition to paying prevailing school impact fees at the time of building permit issuance,³⁴ the Specific Plan addresses the need for additional school facilities created by its development by setting aside two 11+ acre school sites (i.e., in PA 68 for Banning USD and PA 20 for Beaumont USD) to increase available school facilities.

³⁴ Estimated to be more than \$40 million based on residential units alone and current prevailing fees, assuming an average of 2,500 SF per unit.

IMPACT ANALYSIS AND MITIGATION MEASURES***Impact 4.12-3: Need for New or Physically Altered School Facilities***

Threshold: *Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered school facilities?*

Determination: *Less than Significant with Mitigation Incorporated*

To determine potential school facilities needs attributable to the proposed Project, school age population generation factors provided by both Districts were applied to the approximate maximum number of dwelling units located within each of the Districts given the existing District boundary. Based on this, the analysis assumes that approximately 390 of the proposed dwelling units located in Planning Areas 50, 51, 52 would be located in the Banning USD jurisdiction, with the remaining approximately 4,997 residences located within the Beaumont USD jurisdiction. Table 4.12-7, *Students Generated by the Proposed Project*, summarizes the total number of students that could be generated by the Project at buildout for each school level. The impact of the Project would be incremental over time.

Table 4.12-7
Students Generated by the Proposed Project

Grade Level	Student Generation Rate	Total Student Generation (Lower Maximum)
Banning Unified School District – 390 residential units^{a,b}		
Kindergarten – 6 th Grade	0.308	120
7 th and 8 th Grade	0.098	38
9 th – 12 th Grade	0.183	71
Total Banning USD		229
Beaumont Unified School District – 4,997 residential units^{c,d}		
Kindergarten – 5 th Grade	0.2762	1,380
6 th – 8 th Grade	0.1327	663
9 th – 12 th Grade	0.1716	858
Total Beaumont USD		2,901
TOTAL STUDENT GENERATION		3,130
a. Student Generation Rates are based on the Banning Unified School District Master Plan (2005).		
b. Student Generation Rates are taken from the Beaumont Unified School District Residential Development School Fee Justification Study, March 2010, pp 8 (Student Generation Factors per Residential Unit		

The Project would comply with Government Code Section 65995 and would pay prevailing school facility impact fees at the time of building permit issuance, which would provide full mitigation of the Project's impacts on school facilities, pursuant to SB50 and the *California Government Code*. The General Plan EIR identifies payment of these fees as the primary mitigation measure for school impacts; refer to Section 4.12.3, *Regulatory Framework*, which sets forth all of the General Plan policies and GP EIR mitigation measures that apply to public schools.

Project impacts to public schools would be fully addressed through compliance with existing laws and regulations including the payment of school facilities fees for each dwelling unit located within the boundaries of the receiving school district, and through the provision to two potential school sites within the development (PSU-3). Accordingly, the Project's impacts on school facilities would be less than significant.

Mitigation Measures

PSU-3 The Project shall include potential school sites within the development by designating and setting aside two 11+ acre Planning Areas (i.e., PA 68 for Banning Unified School District and PA 20 for Beaumont Unified School District) to increase available school facilities.

Cumulative Impacts

Determination: Less than Significant

The proposed Project could generate a need for additional school facilities in both the Banning and Beaumont Unified School Districts as the number of students projected to be generated by the Project at buildout substantially exceeds the capacity available or reasonably projected to be available, at existing schools. To mitigate the potential impacts to school facilities created by the growth anticipated by the City's General Plan, Policy 4 requires the City to assist, cooperate and coordinate with the Banning and Beaumont Unified School Districts and State agencies in identifying, acquiring and developing school sites needed to meet future growth demands and encourage the selection of potential school sites that are centrally located in areas of existing or future residential development. The Butterfield Project provides two school sites to mitigate impacts to public schools occasioned by its development, in compliance with this policy.

General Plan Policy 4 further requires the City to cooperate in securing school impact fees from developers, pursuant to State law. The Butterfield Project will be conditioned to pay School District Facilities Fees and will require proof of payment prior to the issuance of building permits for affected units. Lastly, General Plan Policy 2 requires the City to continue to work with the Banning Unified School District to amend the District's boundary to encompass all lands within its corporate limits and sphere of influence. The initial action to accomplish that

goal was taken in 2005, when boundaries were adjusted south of I-10, and discussions continue between the City and the Banning and Beaumont Districts to adjust boundaries between Highland Home Road and Highland Springs Avenue north of I-10, as proposed by the Specific Plan. The location of schools and student generation estimates contained in this EIR are based on those proposed revised boundaries, as are the proposed locations of the school sites within the Specific Plan. Accordingly, the proposed Project fully conforms to General Plan policies designed to mitigate development impacts to public schools.

SB 50 provides that the impact of new development on school facilities for purposes of CEQA shall be fully mitigated through the payment of District School Facilities Fees. The General Plan EIR mitigation measures for public schools reflect that understanding. Since the proposed Project would pay the District-mandated fees at the annually adjusted level imposed by each District and, in addition, would also make available two elementary school sites which, when developed, would have capacity equal to, or exceeding that required to accommodate the number of students generated by the proposed Project, the Project would fully mitigate its impacts pursuant to existing policies and its contribution to any cumulative impact of new development on public schools would not be cumulatively considerable.

Level of Significance After Mitigation

With the payment of District-levied School Facilities Fees and the dedication/offer of school sites to both the Banning and Beaumont Unified School Districts, the proposed Project would have a less than significant impact on school facilities at both the Project and cumulative level

4.12.4.4 LIBRARY SERVICES AND FACILITIES

SIGNIFICANCE THRESHOLD CRITERIA

Implementation of the proposed Project may result in a potentially significant impact if the proposed Project would:

- a) Result in substantial adverse environmental impacts associated with the provision of new or physically altered public facilities or the need for new or physically altered public facilities.

ANALYTIC METHOD

Impacts on public facilities are considered significant if an increase in population would result in inadequate facilities that cannot be mitigated through statutorily defined means. While library impacts are still measured in terms of volumes and square footage per capita, these standards are in flux due to the introduction of digital access to library services and cross-

District collections; however, the current adopted standards are used in this analysis to determine the significance of Project impacts on the existing library system.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact Analysis 4.12-4: Need for New or Physically Altered Library Facilities

Threshold: *Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered public library facilities?*

Determination: *Less than Significant*

Both the Banning and Beaumont Library Districts are funded primarily by General Fund revenue allocated to the District by the City it serves. Project residents would have access to both public library systems and could, therefore, increase the use of facilities and programs in both Districts. Both Districts have an existing deficit of space pursuant to current State standards; however, neither District has adopted a facilities space to population ratio standard.

Both the Banning and Beaumont Library District are part of the Inland Library System, which allows each District library to access the collections of other system libraries. In addition, both Districts have access via the internet to the full catalogue of the County of Riverside Library System holdings. Accordingly, no real deficit exists in terms of volumes held by either Beaumont or Banning. The need for additional library facilities, if warranted, would typically be provided through General Fund revenue, redevelopment revenue, user fees, facilities fees, and/or fundraising programs such as “Friends of the Library” activities in addition to State grants and may also be funded through the imposition of library facilities fees on new development, if adopted in the future. The Project would contribute substantially toward overall City General Fund revenue and therefore proportionally increase revenue available to the local library districts that could be used to expand existing facilities.

Determining actual library space needs resulting from the implementation of the Project is difficult in the absence of an adopted space standard. The City’s General Plan and General Plan EIR indicate that the issue of library facilities would be addressed by careful monitoring of usage and consideration of developer fees to fund future expansion if warranted. Both the Banning and Beaumont Districts are considering the imposition of library facilities fees on new residential development and, if adopted, the Project would pay its assessment.

Increasingly, Districts around the County have addressed facilities needs through joint-use agreements with local school districts. Further, it should be noted that at present, library facilities and their use are transitioning from fixed collections to multi-media programs that rely heavily on new information technology and increasingly focus on the distribution of software products, while new facilities are increasingly focused on facilitating community internet

access. These changes in function may result in changes in facilities standards and the distribution of those facilities over the life of the Project. As functions change, joint use agreements with local recreation and parks districts for use of community centers could also provide a means of efficiently expanding library facilities and functions. Mobile libraries have also been used to extend library services to under served areas without necessitating the expansion of fixed facilities.

While acknowledging the service challenges, the City's General Plan EIR found that the build out of the General Plan would not create a significant and unavoidable impact on library facilities. The Deutsch Banning Specific Plan, which Butterfield amends, was included in the land use and population growth numbers that support that analysis. The Butterfield Project would pay any Library Facilities Fee that might in future be levied on new development. In addition, the Project would provide school sites that would be developed with schools that would include on-site libraries that could be used jointly with the library districts and would additionally provide a location for a new community center that could be jointly used to increase community access to the internet, a primary function of existing library facilities.

Based on the General Plan finding, and in the absence of any locally adopted space to population standard for facilities, and given that the Project would pay any Library Facilities Fee assessed by either the Beaumont or Banning Library Districts, if adopted, the proposed Project would have a less than significant impact on library facilities.

Cumulative Impacts

Determination: Less than Significant Impact

Although there is an existing deficiency in library space and volumes based on current State standards, neither the Banning nor the Beaumont Library District have an adopted space-to-population ratio standard. Cumulative development within the service areas of the two library districts is expected to result in increased use of existing library facilities and programs; however, increasingly, access to library collections and programs is via the internet and both library systems maintain effective interactive websites for that purpose. Though not every household has access to internet technology, enough do to make it difficult to anticipate what facility needs will be in the future or how those needs will be met.

Both Districts have indicated in their adopted planning documents that any expansion of library facilities that involves new construction would require additional funding. Each District has the ability to impose library facilities fees on new development to fund facility expansion and have indicated that such fees are likely in the future. The Districts may also expand access through joint use agreements with the school district with which they share boundaries.

The General Plan EIR analyzed cumulative impacts on the Banning Library District resulting from new development, including the Butterfield project, and concluded that the impact would be mitigated through careful monitoring of library use and consideration of the use of library facilities fees on new development to fund new facilities construction if those facilities are warranted, which the Project would pay if required. By these means the Project would fully mitigate its impacts pursuant to existing policies and its contribution to any cumulative impact of new development on library facilities would not be cumulatively considerable.

Level of Significance After Mitigation

Project-related impacts on library facilities would be less than significant.

4.12.4.5 HEALTH CARE SERVICES AND FACILITIES

SIGNIFICANCE THRESHOLD CRITERIA

Implementation of the proposed Project may result in a potentially significant impact if the proposed Project would:

- a) Result in substantial adverse environmental impacts associated with the provision of new or physically altered public facilities or the need for new or physically altered public facilities.

ANALYTIC METHOD

There are no adopted standards for the number of beds or physicians per capita required to provide “adequate” hospital services. Accordingly, this analysis will focus on the ability of the San Gorgonio hospital to serve the anticipated City population at General Plan build out.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing ordinances and regulations described above will avoid or mitigate potential impacts related to health service facilities. In addition, the following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) The Project will be developed in phases over a period of up to 30 years, which would allow the San Gorgonio Hospital ample time to respond to any need for additional facilities that could be triggered by Project development, as funding becomes available.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact Analysis 4.12-5: Need for New or Physically Altered Hospital Facilities

Threshold: *Would the Project result in substantial adverse environmental impacts associated with the provision of new or physically altered hospital facilities?*

Determination: *Less than Significant*

The City of Banning General Plan EIR addressed potential impacts to health services resulting from buildout of the General Plan and concluded that buildout of the General Plan would not result in a significant impact to health services. Because the Deutsch Specific Plan Project's projected contribution to the demand for hospital facilities was considered in the General Plan analysis, and the Butterfield Project is generally consistent with the Deutsch Specific Plan, implementation of the proposed Project is not expected to have any significant adverse impacts on medical facilities in the area.

Cumulative Impacts

Determination: *Less than Significant*

The San Geronio Memorial Hospital has independently planned for population growth in its service area and will have capacity to serve up to 225,000 persons per year once its new facilities are completed in 2014. Therefore the anticipated cumulative impact of new development on hospital facilities would be less than significant.

Level of Significance After Mitigation

The Project's impact on adequacy of hospital facilities would be less than significant.

4.12.4.6 PARKS AND RECREATION PROGRAMS AND FACILITIES

SIGNIFICANCE THRESHOLD CRITERIA

Implementation of the proposed Project may result in a potentially significant impact if the proposed Project would:

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

- b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

ANALYTIC METHOD

This analysis relies on the City's adopted standard for parks as stated in its Master Plan and reviews the facilities that would be provided by the Project, as well as existing facilities that could be used by Project residents, to determine whether the Project's development would have an adverse effect. Environmental impacts associated with the development of recreational facilities within the Project are considered as part of the overall development analyzed in this EIR and are treated separately.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing ordinances and regulations noted below will avoid or mitigate potential impacts related to recreation and park facilities. In addition, the following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) The Project includes park, open space and recreational uses that total approximately 428.8 acres (or approximately 27.8% of the Project footprint. Developed park acreage may be credited toward part, or all, of the Project's required parkland fees, which are estimated to be in excess of \$10 million.
- 2) The Project would offer two elementary school sites for dedication to the Banning and Beaumont USDs. These sites, totaling 23 acres, would be located in PA 20 and PA 68. If constructed, both sites could provide joint use of play ground / field facilities for neighborhood recreational uses.
- 3) The Project will include 19 neighborhood mini-parks in PAs 22-34, 62, 64, 65-67, and 72 that would include combinations of play equipment, play areas, sport courts, shade structures, picnic areas, passive turf play areas, sand boxes, benches, and basic related amenities.
- 4) The Project will include neighborhood recreation parks in PAs 21 and 63, ranging in size from 3 to 4 acres, to serve the active and passive recreational needs of residents. The parks would be centrally located and would be accessible through a pedestrian system of walkways and paths.
- 5) The Project plans to provide 41-acres of larger community parks with sports facilities within portions of the Project's 430 foot-wide SCE easement, specifically in PAs 36, 37, and 38. These parks are intended to be used for fields and sports courts,

playgrounds, trails, and off-street parking and can be accessed via pedestrian walkways or public streets.

- 6) The Project would include an 18-hole, 253.9-acre golf course and clubhouse in PAs 35 and 39, located through the central portion of the Project area. Though privately owned, the golf course would be open to the public seven days a week with the potential for nighttime driving range hours.
- 7) The Project would include the construction and/or extension of trails within and adjacent to open space PAs 19, 50-52, 60-61, 68, 69, 73, 74, 75, and within the natural open space area located on the northeastern portion of the Project site. These trails will provide connections between the residential communities and the natural open space areas within and adjacent to the Project.
- 8) The Project would also include a 30.4-acre multiuse basin in PA 71, where Smith Creek enters the site. This basin could also serve as a recreational amenity for viewing, hiking, fishing, and/or picnicking.
- 9) The Project's parks, trails and open space areas would be maintained by an Landscape Lighting and Maintenance District (LLMD), or other similar entity for use by the Project residents and would not impact the City's General Fund. The Project golf course will be specifically open to the general public for a use fee and owned, operated, and maintained by a private operator.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact Analysis 4.12-6A: Increased Use of Existing Recreational Facilities

Threshold: *Would the Project result in an increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Determination: *Less than Significant*

At full buildout the proposed Project would include 19 neighborhood/mini parks, 2 neighborhood recreation parks, 3 community park areas, 2 potential joint-use school sites, and a 253.9-acre golf course. The Project's active recreational parks include 17.5 acres of neighborhood mini parks, approximately 8.0 acres of neighborhood recreation parks, and three community parks totaling 41 acres located within the 430 foot wide SCE easement. In addition, the Project would provide trails and bikeways as described in Section 3.0, *Project Description*, and a 30-acre multi-use basin area that could potentially serve as a recreational amenity for viewing, hiking, fishing, or picnicking.

While the Project would add approximately 14,545³⁵ new residents to the City, the park and recreational needs of those residents would be largely accommodated within the Project itself based on the currently adopted City standard of 5 acres of park/recreation land for every 1000 residents. In addition, the Project would pay approximately \$10 million dollars in City-imposed park facilities fees, less whatever off-sets are allowed pursuant to City code to provide funding for acquisition and improvement of planned park facilities (including regional parks) that would benefit Specific Plan area residents. Table 4.12-8 identifies the facilities to be provided by the proposed Project by type, location, and acreage. Table 4.12-8 does not include the other public open space/recreational amenities that are proposed for the Project, such as the public 247+ acre golf course, 30+ acre north basin recreational lake, and trails in the northern open space area. Although Table 4.12-8 totals 66.5 acres for parkland use, the combined additional public open space and recreational amenities acreage would exceed the City's goal of 5 acres of parkland per 1,000 residents.

It should be noted that locations of proposed parks are approximate and subject to adjustment as development of the Project proceeds. Further, should the golf course not be constructed due to market or other constraints which would dictate other recreational uses, the Specific Plan allows for active and/or passive uses in this area including parks, trails, native habitat, and biological mitigation area while retaining groundwater recharge and wetland mitigation functions. In addition, the Specific Plan would allow for the development of publicly financed and operated Community Center in any Planning Area. The Community Center would be allowed by Conditional Use Permit (CUP) in all residential Planning Areas and in all neighborhood/mini-park Planning Area as well as in the golf course/drainage Planning Areas 35 and 39.

While the new residents of the Project would be expected to make use of specialized recreational facilities, such as the City's Community Center/Senior Center, skate park, municipal swimming pool, or planned regional Smith Creek Park, the Project would also generate sales and property tax revenue to support the operation and maintenance of these facilities through the City's General Fund to offset any physical deterioration that might occur as a result of increased public usage. Accordingly, the Project would have a less than significant impact on existing public recreational facilities and parks. In addition, the Project's provision of active recreational facilities including neighborhood parks, mini parks, potential new Community Center, and a publicly accessible golf course would address the needs of the Project itself and the identified deficiencies in the "Gap Area No 1" identified in the Draft Recreation and Parks Master Plan and thus the development would have a net beneficial impact on the City's available recreational amenities.

³⁵ 14,545 persons is based on 2.7 persons per dwelling unit, as stated in the Draft 2008 Housing Element and as utilized in the Butterfield Specific Plan, which is a more conservative factor for this parks analysis (the currently adopted General Plan has a population factor of 2.6 persons per dwelling unit).

Table 4.12-8
Parkland Use and Acreage

Type of Park	Planning Area	Acreage
Community Park	PA 38	16.4
Community Park	PA 37	15.1
Community Park	PA 36	9.5
Mini-Park	PA 65	2.0
Mini-Park	PA 32	0.7
Mini-Park	PA 33	0.5
Mini-Park	PA 62	0.7
Mini-Park	PA 64	0.9
Neighborhood Park	PA 66	1.4
Neighborhood Park	PA 34	1.7
Neighborhood Park	PA 72	0.8
Neighborhood Park	PA 67	1.7
Neighborhood Park	PA 24	0.6
Neighborhood Park	PA 31	0.9
Neighborhood Park	PA 25	0.8
Neighborhood Park	PA 30	0.4
Neighborhood Park	PA 28	0.6
Neighborhood Park	PA 22	1.6
Neighborhood Park	PA 23	0.5
Neighborhood Park	PA 26	0.5
Neighborhood Park	PA 27	0.4
Neighborhood Park	PA 29	0.8
Recreation Neighborhood Park	PA 63	4.3
Recreation Neighborhood Park	PA 21	3.7
Golf Course	PA 35/39	253.9
North Basin/Smith Creek	PA 19/71	38.3
Open Space	PA 69, 73-75	70.1
	Total: 24 PAs	Total: 66.5 ac

Recreation Neighborhood Park These parks consist of 3-4 acres that serve the active and passive recreation needs of the proposed Project. Proposed amenities may include: restrooms and off-street parking, sport courts, swimming pools, play areas, and other basic related amenities. These facilities would also be equipped with lighting to accommodate nighttime activities and provide additional security and safety. Other facilities, including visitor information centers and gift shops would be allowed with a conditional use permit.

Community Park These parks are located within the Project's existing 430' wide Southern California Edison (SCE) easement parks and are intended to be used for ball fields and sports courts. It may also include golf oriented public use and related facilities, playgrounds, trails, and off-street parking.

Neighborhood and Mini-Parks Neighborhood mini-park sites are identified to serve neighborhoods within the park's vicinity. These parks are anticipated to include play equipment, sport courts picnic areas, and basic related amenities.

Note: Planning Areas 3, 4, and 5, currently planning for residential use, have a commercial overlay in the Specific Plan. In the event that these PAs are converted to commercial use, the parks located in PAs 26 and 27 would not be built and the area would be incorporated into the commercial development.

Impact Analysis 4.12-6B: Construction of Recreational Facilities

Threshold: Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Determination: Less than Significant with Mitigation Incorporated

The Specific Plan (Section 3.6.3) estimates that City parkland or in lieu fee requirements total 73 acres. As noted in Impact Analysis 4.12-6A and Table 4.12-8, the proposed Project includes the provision of park and recreation facilities, including 66.5 acres of active parkland, 253.9 acres of open space use as a golf course, 38.3 acres of lake and drainage facilities, and 70.1 acres of additional open space including a trails system. The environmental affects resulting from the construction of park facilities (i.e., construction phase air quality, water quality, lighting, and use of hazardous materials for maintenance) have been addressed programmatically in Sections 4.01, *Aesthetics – Light and Glare*; 4.03, *Air Quality – Construction Phase Impacts*; and 4.08, *Hazards and Hazardous Materials – Operational Phase Impacts*; 4.11, *Noise*; and 4.13, *Water Supply*, of this EIR. Construction of proposed parks would be subject to all applicable mitigation measures identified in those sections.

Operation of the proposed facilities could result in noise and light effects that could potentially impact adjacent residential uses within the Project site. The small neighborhood and mini-parks would include small scale play equipment suitable for young children in addition to seating, turf and similar facilities. It is not expected that these small neighborhood facilities would be used at night or in the early morning hours and they are not expected to be a source of noise during those sensitive periods. Further, where they abut residential lots they would be separated from the residential use by block walls, which would attenuate daytime noise. These parks would not include night lighting unless needed for security purposes to allow for adequate policing, in which case the lighting would be subject to the provisions of Section 5.106.8 of the California Green Code (i.e. shielding and spillage) as well as the provision of the City's Municipal Code and Mitigation Measure AES-7, all of which would prohibit park lighting spillage into adjacent residential lots. The recreation neighborhood parks located in PAs 21 and 63 and the community parks proposed for PAs 36, 37, and 38 would be separated from sensitive adjacent residential uses by public streets. The parks would be designed so that the most active recreational uses are concentrated along the South and North Loop Collector Streets, which would provide significant separation from residential uses and noise attenuation features would be incorporated into building construction to the extent needed to ensure that interior noise levels in adjacent residential uses remain within acceptable limits. Night use, if permitted, would be limited to specific hours and night lighting would be reduced to the minimum required for security purposes and further regulated by Code requirements and Mitigation Measure AES-7. Night use and night lighting of the golf course are not anticipated but if they occur, lighting would be subject to Code requirements and Mitigation Measure AES-7. Noise impacts from activity on the golf course are not anticipated to be significant.

With adherence to Code requirements, cited Mitigation Measures, and appropriate design strategies, impacts resulting from park or golf course use on nearby sensitive residential uses would be less than significant.

Cumulative Impacts

Determination: Less than Significant

The City's General Plan assumes a need for an additional 411 acres of recreation and parkland at buildout to serve the population anticipated at General Plan build out based on the City's 5 acre per thousand population standard. In addition to the General Plan, the City is currently reviewing a Draft Master Plan for Recreation and Park Facilities that is expected to be adopted in 2011 to guide the development of recreational facilities to meet current and anticipated demands through 2020. The standards and impact issues identified in the pending Master Plan are used in this analysis of cumulative impacts as they represent the current planning of the City. The City currently owns 64 acres of developed parkland, additional recreational facilities, and 161 acres of undeveloped parkland for which master plans have been developed and are pending funding. The City also contains the 126-acre Gilman Ranch Museum Regional Park, owned and operated by the County of Riverside Regional Park and Open Space District, leaving the City with a shortfall of 60 acres of parkland once planned park facilities are constructed on City-owned sites.

The proposed Project site is located within a "Gap Area" identified in the Draft Master Plan. Park facilities located within the Project area could be accessed by residents living outside of the Butterfield Specific Plan boundaries but still within the "service area radius" of specific facilities. In addition, the Project may include a site for the development of a new Community Center and would pay City-imposed Parkland Facilities Fees of as much as \$10 million over the life of the Project, which could be used to construct the Center or to construct additional park facilities. Therefore, the Project would address an identified deficiency in existing facilities and services, including locational gaps in facilities, and would contribute approximately 66.5 acres of active park facilities, in addition to potentially two joint school/park use sites, and a 253.9-acre golf course, and a system of trails, bikeways and open space. While a deficit in overall park acreage for the City may still exist, the proposed Project would add to the City's inventory of public recreation resources and its contribution to any cumulative significant condition would not be cumulatively considerable.

Level of Significance After Mitigation

The Project's impact on Recreation and Park facilities would be less than significant.

4.12.4.7 ENERGY

SIGNIFICANCE THRESHOLD CRITERIA

The following thresholds of significance are based on Appendix F and Appendix G of the 2010 CEQA Guidelines, which set forth guidelines for addressing impacts of a proposed Project on energy resources. For the purposes of this EIR, implementation of the proposed Project may result in a potentially significant impact if the proposed Project would cause either of the following results:

- a) Require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- b) Encourage the “inefficient, wasteful and unnecessary consumption of energy” (PRC 21100(b) (3)).

ANALYTIC METHOD

To determine potential impacts on energy supplies resulting from implementation of the proposed Project, the projected increase in electricity demand was compared to the adopted 10-Year Master Plan for Electricity (2004), to evaluate whether or not there would be an adequate and reliable source of electricity to serve the proposed Project, and whether infrastructure improvements would be necessary. The demand for natural gas was analyzed based on projected consumption and availability of supply. As noted previously, the Project is generally consistent with the previously approved Deutsch Specific Plan and the City’s General Plan. As such, the energy-related demands associated with the Project have been factored into long-range public service and utility planning. Additional discussion and mitigation related to energy efficiency is provided in Section 4.5, *Climate Change*.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing ordinances and regulations described above (and in Sections 4.3, *Air Quality* and 4.5, *Climate Change*) will avoid or mitigate potential impacts related to energy. In addition, the following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) Homes within the Project have the option to participate in Pardee Home’s “Living Smart” program, which meets or exceeds local, State, and national standards for green home building, including the incorporation of features and options that reduce energy demand and promote use of alternative energy sources and non-motorized transportation (refer to Section 4.5, *Climate Change*).

- 2) The “Deutsch Substation,” called for in the City’s 10-Year Electricity Master Plan and as allowed for in PA 70 of the Specific Plan, has already been completed by the City (2009) on the 4.2-acres located within this PA. The substation facilitates interconnection with SCE’s transmission lines and provides for the distribution of electricity to the Project and other sites in the City’s northwest area.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact Analysis 4.12-7A: New Energy Production or Transmission Facilities

Threshold: *Would the Project require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Determination: *Less than Significant with Mitigation Incorporated*

The City of Banning Electric Department supplies electricity to the Project site. The City owns a combined total of 27.4 megawatts of capacity, which covers the bulk of its power requirements. To cover its peak summer demand the City purchases power through the Western System Power Pool. Power is delivered to the City system through Southern California Edison transmission lines.

In 2004 the City adopted a 10-year Electric System Master Plan (ESMP) that analyzed the City’s ability to serve a system peak demand of 73 MW. In developing its peak demand forecast the City considered both existing demand and projected future demand generated by then approved or pending projects. Among these was the Deutsch Specific Plan Project, which was projected to generate a peak demand of approximately 17,473 kVA based on a development that included 5,400 residential units and 50 acres of retail commercial.³⁶ The proposed Butterfield Specific Plan is an amendment and restatement of the Deutsch Specific Plan and proposes fewer residential units and similar commercial square footage; therefore, the 2004 Master Plan estimate of demand would be valid for the Butterfield Project. In the years since the adoption of its ESMP the City has seen an over 10 percent *reduction* in peak demand.³⁷ The Department’s estimates of peak demand in 2013 have been significantly reduced to approximately 45.153 MW, or approximately the same levels as in 2004, as compared to the 2004 ESMP projection of a peak demand of approximately 73 MW for that projection period. Accordingly, the facilities and demand analysis contained in the 2004 ESMP can be considered valid well beyond its target sunset date.

To meet the projected additional demand of the Butterfield Specific Plan Project and other anticipated growth in the northwest portion of the City, the ESMP proposed the construction of

³⁶ City of Banning 10-year Electric System Master Plan, Exhibit 1-2, *Proposed Developments for the City of Banning*,

³⁷ City of Banning Integrated Resource Plan, *One Year Update*, July 2009

a new substation within the Project site. That substation was constructed and came online in March 2009, ahead of the originally anticipated schedule, and is currently in service. According to the City's 2009 *Annual Report to the Western Power Pool*, this substation, "...will provide the necessary infrastructure to help meet Banning's anticipated load growth in the northwest portion of the City."³⁸ In this same document the City states that it, "does not currently foresee the acquisition of any additional resources, other than renewable resources, and therefore does not anticipate any adverse environmental effects caused by new resource acquisition." Since no additional supplies are required for the proposed Project, its development will not require or result in the construction of new energy production facilities. Further, the extension of energy services to the Project would be a natural extension of existing infrastructure and would not result in a disjointed pattern of utility extensions.

The proposed Project includes the relocation of certain existing Southern California Edison power transmission lines as described in detail in Section 3.0, *Project Description*, of the EIR. This activity includes relocation and reconstruction of approximately 2,700 linear feet of above ground power lines on 5 new power poles, and the replacement of three existing poles with four new poles to move the system farther away from the proposed homes along a length of approximately 600 feet. Approximately 900 lineal feet of existing overhead line will be relocated as underground line while 1800 lineal feet will continue as overhead lines. The physical impacts of the proposed relocation and undergrounding of existing SCE lines and poles will have a less than significant effect on the environment, since the activity would be taking place in areas already disturbed by site grading and related construction activity. The potential visual impact of proposed utility relocations is addressed in Section 4.2, *Aesthetics/Light & Glare* and the relocation of a portion of the existing high pressure natural gas pipeline is discussed in Section 4.8 *Hazards and Hazardous Materials*. The Project will also require the installation of underground electrical power lines and natural gas lines throughout the Project. These underground utility lines would be constructed within public street right-of-way and would not result in significant environmental impacts since the ROW would already be disturbed as a result of grading, street construction and related trenching. In addition, the contractor will ensure that precautions are taken to avoid the Southern California Gas Company pipeline observed crossing the property that may be present along the alignments of proposed off-site infrastructure (refer to Mitigation Measure HAZ-6). Given all of the foregoing, the Project's impacts on energy generation and transmission facilities would be less than significant.

Impact Analysis 4.12-7B: Consumption of Energy

Threshold: Would the Project encourage the inefficient, wasteful or unnecessary consumption of energy?

Determination: Less than Significant

³⁸ Ibid, page 10, *Environmental Effects*

The residential, commercial, and institutional uses to be developed as part of the Project will be designed and constructed pursuant to the applicable provisions of CCR Title 24, and the City's energy and lighting efficiency standards. In addition, Specific Plan Design Guidelines include provision for the use of photovoltaic panels integrated into the roofline of residential structures, consistent with General Plan Energy Policy 2. All new construction facilitated by the Specific Plan would be required to comply with *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*, contained in Title 24, Part 6, of the California Code of Regulations as amended in 2008. These standards became effective on January 1, 2010 and have been incorporated into the City's Building Code. In addition, the Project would be required to comply with the lighting power requirements of the California Energy Code, CCR, Part 6 and Section 5.106.8 of California Green Code, which requires automatic exterior light control for nonresidential buildings. Further, the Project would reduce the number of street lights on interior streets by eliminating mid-block lights, subject to City review, and/or use of LED street lights, resulting in an energy savings. While not mandatory, the California Green Code encourages design that achieves at least a 15 percent reduction in energy usage when compared to the State's mandatory energy efficiency standards. At Butterfield, homebuyers can have their homes constructed pursuant to Pardee's LivingSmart program to maximize energy efficiency (refer to Section 4.5, *Climate Change*, for a detailed discussion). Therefore, the Project would not encourage the wasteful or inefficient use of energy and its impacts relative to this threshold would be less than significant.

Cumulative Impacts

Determination: Less than Significant

The City's 10-Year ESMP assumes the need for additional transmission facilities to meet the requirements of anticipated growth including the development of the Butterfield Specific Plan but does not indicate a need for additional generation facilities. The General Plan anticipates the need for both additional transmission and additional generation facilities with full buildout of the General Plan. Projections regarding demand growth made in the 2004 ESMP have not been realized within the Plan's intended timeframe. Rather, the City has experienced a decline in demand of more than 10 percent since the Plan's adoption. Other than on-site utility relocations noted above, the proposed Project can be served with existing facilities, including an already constructed and operating substation, and with existing generating capacity. In addition, because of the energy efficiency features required by the 2008 California Energy Code and 2010 Green Building Code, which would be implemented by the Project, in addition to features integrated into the Project pursuant to Pardee's LivingSmart Program, the Project would meet or exceed local, State and federal energy conservation guidelines and regulatory requirements. Therefore, while the cumulative impact of growth pursuant to the General Plan could be cumulatively significant insofar as it could require additional generation and transmission facilities, the Project's contribution to cumulative impacts would not be cumulatively considerable.

Level of Significance After Mitigation

The Project's impact on transmission facilities and energy utilization would be less than significant.

4.12.4.8 COMMUNICATIONS SYSTEMS

THRESHOLD SIGNIFICANCE CRITERIA

Implementation of the proposed Project could result in a potentially significant impact if the Project would:

- a) Result in a need for new systems or substantial alterations to communications systems, the construction of which could result in significant environmental effects.

ANALYTIC METHOD

To determine potential impacts on communication services the projected increase in demand was referenced against the City General Plan standards to determine the availability of an adequate and reliable source of communication services.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing ordinances and regulations described above will avoid or mitigate potential impacts related to communications services. In addition, the following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) As part of the City's standard plan check review and tract map development process, the Applicant will make appropriate provision for telecommunication services.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact Analysis 4.12-8: Adequate Telecommunication Facilities

Threshold: Would the Project result in a need for new systems or substantial alterations to existing communication systems?

Determination: Less than Significant

Cable, internet, and phone services would be extended through the Project by their providers as part of the dry utility installations. Cell towers to serve the area are in place or can be constructed unobtrusively within the Project site if needed. Telecommunications is a consumer-driven utility that will provide service as customers request that service. Since the telecommunications industry is rapidly evolving, it is not reasonable or practical to plan for technological changes over the 30-year implementation span of the Project; however, such changes can be accommodated with the Project as it develops. Installation of facilities and cabling necessary to support telecommunications is performed by the service provider as each tract in the Specific Plan is developed. As new technologies emerge, it has been the practice of service providers to upgrade their existing systems on an as-needed basis in occupied areas where infrastructure has already been installed. Based on current service provision, adequate capacity exists to serve the proposed Project. Therefore, impacts would be less than significant.

Cumulative Impacts

Determination: Less than Significant

Increased development due to regional growth would result in an increase in demand for telecommunication services; however, telecommunications is a reactive utility that will provide customers service as requested and the service provider would construct those systems in accordance with applicable local, State and federal regulations as need arise. The Project would be adequately served by existing facilities and therefore would not contribute considerably to any future cumulative need for additional facilities.

Level of Significance After Mitigation

The Project's impact on communication services would be less than significant.

4.12.4.9 SANITARY SEWER AND RECYCLED WATER

THRESHOLD SIGNIFICANCE CRITERIA

Implementation of the proposed Project could result in a potentially significant impact if the Project would:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

ANALYTIC METHOD

To determine impacts to wastewater associated with the proposed Project, estimated future wastewater flows are compared to the capacity of the wastewater treatment plant to determine whether sufficient capacity exists and/or whether there is a need for additional wastewater treatment systems. The Butterfield Specific Plan area's projected irrigation water demand to serve the Project's common landscaped areas as well as the golf course is estimated at 1,321 acre-feet/year (e.g., the projected ultimate wastewater generation of 1.34 mgd, without allowing for conservation, equates to 1,502 acre-feet/year).³⁹ Approximately 75% of the total wastewater flow that would enter the proposed optional on-site satellite plant would be treated and discharged as recycled water. The other 25% of the total volume of wastewater flows, consisting primarily of residual biosolids and excess treated gray water, will be discharged to the City's sewer system via a new sewer trunk line for delivery to the City's main treatment plant. It is anticipated that recycled water from a Project satellite plant, the City's main treatment plant, or a combination of both would be the preferred source to meet common area and golf course irrigation demand, if available.⁴⁰

It should be noted that the wastewater generation estimates used in this analysis do not reflect the level of water conservation that would be achieved by the Project's compliance with current City and state regulations, including the 2010 California Green Building Standards Code (Title 24, Part 11) which includes a mandatory 20 percent reduction in indoor water use, with voluntary standards for 30, 35, and 40 percent reductions and requires separate water meters for nonresidential building's indoor and outdoor water use, with a requirement for moisture-sensing irrigation systems for large landscape projects such as golf courses, parks, and slope irrigation. Nor do these generation estimates include water savings which could be achieved through adherence to Pardee Home's LivingSmart program for voluntary reductions in excess of the mandatory 20 percent or by improved technology made available over the 30-year implementation phase of the Project. Additional detailed discussion is provided in Section 4.14, *Water Supply*, as it relates to water conservation, reclamation, and use of recycled water. Also, a detailed conservation scenario discussion is provided in Appendix J, Water Supply Assessment.

³⁹ This figure is "without conservation", which results in a higher wastewater generation figure, consistent with the project WSA. "With conservation", the wastewater generation would be 0.84 MGD, which equates to 942 AFY.

⁴⁰ Butterfield Specific Plan, Section 3.5.4 (July 28, 2010).

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing ordinances and regulations described above will avoid or mitigate potential impacts related to wastewater and recycled water facilities and services. In addition, the following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) The Project has been designed to provide an optional satellite wastewater treatment facility, on-site (southern portion of PA 70), should connection and extensions to the City's existing treatment plant be less desirable. This provides the opportunity to divert wastewater from the City's existing plant, and maximize use of recycled water.
- 2) The Project has been designed to maximize use of recycled water, through provision of a comprehensive on-site recycled water system pursuant to City requirements. In addition, as note above, the Project includes options to either utilize an on-site water treatment plant to deliver recycled water to the site (and thereby diverting wastewater from the City's treatment plant), or deliver recycled water from the City's plant should recycled water be available from the existing plant in the future.
- 3) The optional on-site treatment plant also creates the opportunity to divert additional wastewater flows generated by other (off-site) existing or future uses, to further reduce flows of wastewater to the City's treatment plant, allowing its new capacity to support additional development, and further maximize use of recycled water in compliance with the City's General Plan Goals and Policies. These recycled water options are addressed in further detail in Section 4.14, *Water Supply*.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact Analysis 4.12-9A: Wastewater Treatment Requirements

Threshold: *Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

Determination: *Less than Significant*

The proposed Project is expected to generate approximately 1.34 mgd (without conservation) is wastewater at full build-out, not including adjustments based on future anticipated water demand reductions due to conservation. Project-generated wastewater would be handled by either the City's existing treatment plant or a potential optional on-site satellite wastewater

treatment plant, built as part of the Project. The City's wastewater treatment plant currently receives approximately 2.5million gallons per day (mgd) of wastewater. The plant is currently permitted to accept no more than 3.6 mgd, although its headworks are designed for a 7.8 mgd capacity. At present the City has completed plans for a 1.5 mgd expansion of its treatment plant and a permit for the proposed expansion has been processed by the Regional Board. Once constructed, this expansion could increase the plant's capacity to 5.1 mgd. Expansion of currently permitted capacity would require an amendment to the plant's RWQCB operating permit.

At current operating levels, the City's wastewater treatment plant has approximately 1.1 mgd in unused capacity. The Project's wastewater generation at build-out with conservation is not anticipated to exceed that available capacity. With completion of the proposed plant expansion, there could be an excess capacity of 1.76 mgd⁴¹ available after all of the proposed Project's needs were addressed. Accordingly, the proposed Project would not cause any exceedence of the wastewater treatment requirement of the applicable Regional Water Quality Board.

Alternatively, or in combination with the planned expansion of the City's treatment plant, the Project could supplement the City's wastewater treatment capacity through the construction and operation of a satellite waste water treatment plant on-site. The capacity of the proposed alternative treatment plant stated in the Specific Plan is 1.5 to 2.0 mgd.. Approximately 25 percent of its received flows into the satellite plant would be discharged into the City's sewer system to the main treatment plant. The proposed satellite plant would have the capacity to treat the estimated wastewater generated by the proposed Project at build-out and additional wastewater generated by existing uses located nearby. The proposed on-site water treatment plant would require a permit from the RWQCB and would be operated pursuant to RWQCB requirements together with those of the DHS. In addition to capping capacity the RWQCB permit would regulate the quality of discharge through the existing wastewater treatment plant since any discharges from the alternative satellite treatment plant would be to the City's sewer system.

Whether by utilizing reasonably anticipated expansion of the City's Wastewater Treatment Plant or on-site wastewater treatment, the Project would not result in an exceedence of RWQCB wastewater treatment requirements and the Project's impact as regards this threshold would be less than significant.

The proposed Project would pay City-assessed sewer connection fees in excess of \$20 million for sewer connection in addition to ongoing user fees. Connection fees are used in part by the City to defray the cost of any necessary facility upgrades. In addition, the Project would minimize wastewater facility impacts by maximizing use of recycled water. Water quality permitting issues are discussed in greater detail in Section 4.9, *Hydrology and Water Quality*. Wastewater

⁴¹ (1.1 mgd in unused capacity – 0.84 = 0.26 + 1.5 mgd = 1.76).

currently discharged from the City's Treatment Plant complies with the treatment requirements of its RWQCB-issued Permits. With payment of required connection fees and compliance with required regulatory agency permits, the Project will not have significant impacts related to RWQCB wastewater treatment requirements.

Impact Analysis 4.12-9B: Water and Wastewater Facilities Expansion

Threshold: *Would the Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Determination: *Less than Significant with Mitigation Incorporated*

The Project proposes construction of an on-site and off-site water, wastewater and recycled water system, as described in Section 3.0, *Project Description* and referenced in Impact Analysis 4.12-9A. Impacts associated with the provision of water and recycled water distribution infrastructure are addressed in Section 4.13, *Water Supply*. As noted above, the proposed Project would require either the expansion of existing City wastewater treatment facilities or the construction of a satellite wastewater treatment facility on site.

The environmental impacts associated with the proposed expansion of the City's Wastewater Treatment Plant have been addressed in the 2008 *Wastewater Treatment Plan Expansion and Phase I Recycled Water System Initial Study/Mitigated Negative Declaration (IS/MND)*. That study determined that the potential impacts associated with the proposed expansion would be less than significant or could be mitigated to a less than significant level.

The environmental effects associated with the construction and operation of an on-site wastewater treatment facility are addressed with the appropriate sections of this document. The optional on-site wastewater treatment facility could result in aesthetics, noise, odor, and hazards impacts. No unmitigated impacts have been identified. Accordingly, whether the Project is served by the expanded City Wastewater Treatment Facility or the on-site satellite facility effects associated with facilities construction would be less than significant.

The Project also proposes various off-site water, wastewater and recycled water facilities, the majority of which would be constructed within existing roadways and would be below ground. Any impacts associated with construction of these facilities have been addressed in appropriate sections of this EIR. No long-term environmental affects associated with operation of these subsurface facilities are anticipated.

Should the applicant not construct the on-site satellite wastewater treatment plant, and instead rely upon the City to deliver recycled water to the Project, two off-site pump stations would need to be constructed as part of the conveyance infrastructure. As illustrated in Exhibit 3.0-12,

the 2840 Zone recycled water pump station is conceptually located on Lincoln Street east of Sunset Avenue, in an area characterized by existing residential, industrial and vacant lots. Reconnaissance surveys of this area did not indicate the presence of any sensitive resources that could be impacted by either construction or operation of the facility.

If the on-site wastewater treatment plant is construction then, as illustrated in Exhibit 3.0-13, the applicant may construct an optional off-site sewer lift station to allow diversion of wastewater from off-site areas to the proposed on-site plant to allow production of recycled water in the interim period before the Project's full wastewater generation potential is realized. Implementation of this option would further reduce wastewater treatment demand at the City's existing treatment plant, and further maximize use of recycled water. The location for this potential off-site sewer lift station is conceptually shown at the corner of Omar Street and Ramsey Street. Although this area is generally characterized by commercial/industrial buildings and vacant lots, the specific intersection of Omar and Ramsey may have sensitive resources including eucalyptus windrows and drainages that traverse parcels at the northwest corner of this intersection. These resources would require careful consideration during facility design, should this option be implemented. Mitigation Measure PSU-4 is required to ensure that potential impacts associated with the construction of a sewer lift station at the Omar Street location are avoided and/or effectively mitigated. Implementation of PSU-4 and PSU-5 would result in the reduction of potential impacts of off-site infrastructure, specifically the impacts associated with sensitive resources to less than significant levels.

Mitigation Measures

PSU-4 Off-site infrastructure improvements shall comply with all of the same mitigation measures for on-site facilities, as applicable. Off-site facilities shall provide for:

- a Fair market compensation for private land acquisition, if City-owned parcels are not available. Such acquisition shall be either through voluntary sale or through eminent domain proceedings in accordance with local and State law.
- b. A general biological assessment for off-site above ground infrastructure by a qualified biologist. If sensitive resources are determined to be present, those resources shall be assessed and/or delineated, mitigation measures shall be developed and imposed.

PSU-5 Prior to the issuance of building permits for the Satellite Wastewater Treatment Plant and wastewater facilities, the Applicant shall prepare a site-specific construction-level noise analysis analyzing potential on- and off-site noise impacts. In addition, the analysis shall evaluate the potential noise impacts to existing and proposed sensitive receptors. Construction and implementation of the wastewater

treatment plan would require a Conditional Use Permit (CUP) to be approved by the City of Banning, as well as design review of the proposed site plan and building architecture, landscaping and lighting. Compliance with the existing regulations (specified under Impact 4.8-1) and on-going monitoring of the plant's operations would reduce potential impacts associated with the routine use, handling, transport, and storage of hazardous materials.

Also, refer to Mitigation Measures AQ-8 and NOI-5.

Impact Analysis 4.12-9C: Wastewater Treatment Requirements

Threshold: Would the Project result in a determination by the wastewater treatment provider which serves or may serve the Project that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Determination: Less than Significant

Refer to Analysis 4.12-9A. The wastewater treatment provider for the Project has existing and planned capacity that would exceed the combined total capacity needed to serve the Project in addition to its existing commitments and still leave a potential excess capacity of 1.76 mgd. If the Project supplements that treatment capacity by constructing and operating an on-site satellite treatment facility, the Project would have only limited impact on existing treatment capacity.

The Project would extend sewer infrastructure from the Project site to the City's wastewater treatment plant as part of its off-site improvements. The cost of the infrastructure improvements, including off-site lift station, would be borne by the Project. Accordingly, the wastewater treatment provider would have sufficient capacity to serve the proposed Project in addition to its existing commitments and the Project's impact would be less than significant.

The City of Banning has an adopted Capital Improvement Program that includes upgrades and expansion of the City's wastewater treatment infrastructure sufficient to accommodate the proposed Project. Its 2006 *Recycled Water Master Plan* and its 2009-2010 *Rates Study* anticipate and include the construction of the Butterfield Specific Plan Project. In addition, the City's Municipal Code allows the City to require extension of wastewater infrastructure to the Project site as a condition of approval for the Project. Accordingly, the City has and would have the capacity to serve the proposed Project as it develops over time. Therefore, this impact is less than significant.

Cumulative Impacts

Determination: Less than Significant

The General Plan EIR estimates that buildout of the General Plan has the potential to generate approximately 8,203,300 gallons of wastewater per day. This figure includes potential wastewater generated within the proposed Butterfield Specific Plan Project. The City's 2006 *Sewer System Study* anticipates a need to expand capacity at the City's treatment plant as well as the need to expand the balance of the City's sewer collection and transmission system. In addition, the City's plans include creation of a network for the distribution of recycled water to eligible users. Citywide facility improvements are funded through connection fees, user fees, plan check fees, General Fund revenue, and other sources. As noted above, the Project can fully mitigate its impacts. Further, the proposed expansion of the City's wastewater treatment facilities would take place with or without the Project. Therefore, the Project's contribution to the cumulative impacts would not be cumulatively considerable.

Level of Significance After Mitigation

The Project's impact on sanitary sewer facilities and recycled water facilities would be less than significant in the Project and cumulative conditions.

4.12.4.10 SOLID WASTE

SIGNIFICANCE THRESHOLD CRITERIA

There could be a significant adverse impact on solid waste services and facilities if the Project:

- a) Would be served by a landfill that does not have sufficient permitted capacity for project's solid waste disposal needs;
- b) Not comply with Federal, State, and local statutes and regulations related to solid waste;

ANALYTIC METHOD

To determine impacts related to solid waste associated with the proposed Project, estimated future generation of solid waste are compared to the capacity of the landfills available to the City to determine whether sufficient capacity exists and/or whether there is a need for additional landfill capacity that has not yet been identified or quantified. Solid waste generation was estimated based on generation factors provided in the City's General Plan EIR

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND EQUIREMENTS

Existing ordinances and regulations described above will avoid or mitigate potential impacts related to solid waste. In addition, the following Project Design Features will also reduce, avoid, or offset potentially adverse impacts:

- 1) Project homes will be constructed with “standard” and “optional” features pursuant to Pardee Home’s “Living Smart” Program, which includes encouraging, among other things, material conservation and the use of recycled or sustainable resources in new homes.
- 2) All construction on the Project site would comply with the solid waste diversion mandate contained in the 2010 California Green Code, which includes provisions requiring the diversion of a minimum of 50 percent of all construction waste.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact Analysis 4.12-10: Landfill Capacity and Compliance with Regulations

Threshold: *Would the Project be served by a landfill that does not have sufficient permitted capacity for Project’s solid waste disposal needs?*

Threshold: *Would the Project fail to comply with federal, State, and local statutes and regulations related to solid waste?*

Determination: *Less than Significant with Mitigation Incorporated*

Specific Plan build-out will increase the total City wide generation of solid waste. In estimating the potential impact of the General Plan buildout, the EIR used waste generation factors for specific land uses. The potential solid waste that could be generated by the proposed Project was estimated using these same factors and is illustrated in Table 4.12-9.

**Table 4.12-9
Projected Solid Waste Generation at Project Build-out**

Type of Development at Build-out	Annual Waste Generation Factor	Project Unit No./Square Footage	Projected Annual Waste Generation at Build-out
single-family dwelling units	2.04 tons/unit/yr	4,191 DU	8,550 tons/yr
multi-family dwelling units	1.17 tons/unit/yr	1,196 DU	1,399 tons/yr
commercial space	0.0024 tons/sq. ft./yr	549,000 SF	1,318 tons/yr
Source: “Assessments for Solid Waste Impacts,” Deutsch Specific Plan EIR, 1992.			

Since the adoption of the City’s General Plan the State has mandated diversion rates for solid waste and the City has implemented a number of programs designed to bring it into compliance with these goals. To date, the City has achieved a minimum 53 percent diversion rate for solid waste from all categories of land use. In January 2011, the City adopted the 2010

California Green Code as part of its Building Code. The Green Code mandates a diversion rate of 50 percent for all construction wastes. The proposed Project would be required to comply with all federal, State, and local regulations including recycling and diversion. Accordingly, it is reasonable to apply the City's current diversion rate to the Project's solid waste stream, which would reduce the total of solid waste generated by the Project to approximately 5,295 tons per year. Table 4.12-10 shows the percentage of contribution of the proposed Project to the entire waste stream at existing landfills and the Project waste stream at General Plan build-out.

Table 4.12-10
Project Contribution to Solid Waste Stream and Landfill Capacity Impacts

Landfill	Remaining Capacity (cy)	Remaining Capacity (percent)	Permitted Daily Maximum (tpd)	Banning Average Daily Contrib. (tpd)	Banning Average Daily Contrib. (GP Buildout) (tpd)	Project Contrib. at Buildout (with diversion) (tpd)	Perc. Daily Contrib.
Lamb Canyon	18,955,000	55.3%	3,000	41	169	9	5.5
El Sobrante	145,530,000	78.7%	16,054	11.2	45.9	5.43	12
Badlands	19,477,616	64.1	4,000	6.4	26.6	0.8	3
Source: City of Banning Comprehensive General Plan EIR; Cal Recycle Landfill Profiles							

As stated in the General Plan EIR, the City's total impact on all of the landfills that serve it is small in comparison to the permitted capacity of each of the landfills. That remains the case at full General Plan buildout. The proposed Project would contribute from 3- 12 percent of the total City waste stream to any one of the landfills that serve it. All have existing unused capacity sufficient to accommodate the projected waste stream growth, assuming continued compliance with diversion requirements.

The proposed project also includes a golf course and two public schools. The golf course clubhouse could be expected to generate and dispose of a waste stream similar in content to a typical commercial use; however, the primary waste generated by the golf is green waste, comprised of grass clippings, leaves, brush and other vegetative trimmings. Recycling of green wastes can be managed using recommended best management practices recommended by the Golf Course Superintendent Association of America (GCSAA) which include leaving grass clippings where they fall on roughs and fairways, using leaves and brush as mulch, and by on-site or off-site composting. Composting is regulated by the SCAQMD because of the potential for emissions and may be best handled through the separate collection of unused green waste by licensed haulers and transport to a licensed composting facility. To ensure the maximum feasible reduction in the waste stream generated by the Specific Plan's golf course, Mitigation Measure PSU-6 shall be imposed.

The proposed Project also includes two school sites. Food waste and recyclable paper are two of the most prominent materials in school waste streams. The City of Banning, Banning Unified School District, Beaumont Unified School District, WRCOG and Waste Management have in place a recycling program within both the Beaumont and Banning Unified School Districts, which manages waste reduction and waste recycling programs within the District.

In addition, Pardee Home's LivingSmart Program includes measures to reduce solid waste during both construction and operation of the Project and to maximize the use of recycled and sustainable materials. The program meets or exceeds federal, State, and local standards.

Accordingly, the Project would not adversely impact existing land fill capacity, would be fully compliant with all federal, State, and local requirements for solid waste diversion and recycling, and, with the addition of Mitigation Measure PSU-6, its impacts with regard to solid waste would be reduced to a less than significant level.

Mitigation Measures

PSU-6 The operator of the Butterfield Specific Plan Golf Course shall prepare and implement a Operational Waste Management Plan that incorporates to the extent feasible the Best Management Practices for the management of green waste recommended by the Golf Course Superintendent Association of America (GCSAA) including separate collection and recycling of green waste by a licensed hauler and recycling facility, on-site use of green waste for landscape mulching, and other methods acceptable to the City and the SCAQMD so as to reduce the facility's impact on landfill capacity.

Cumulative Impacts

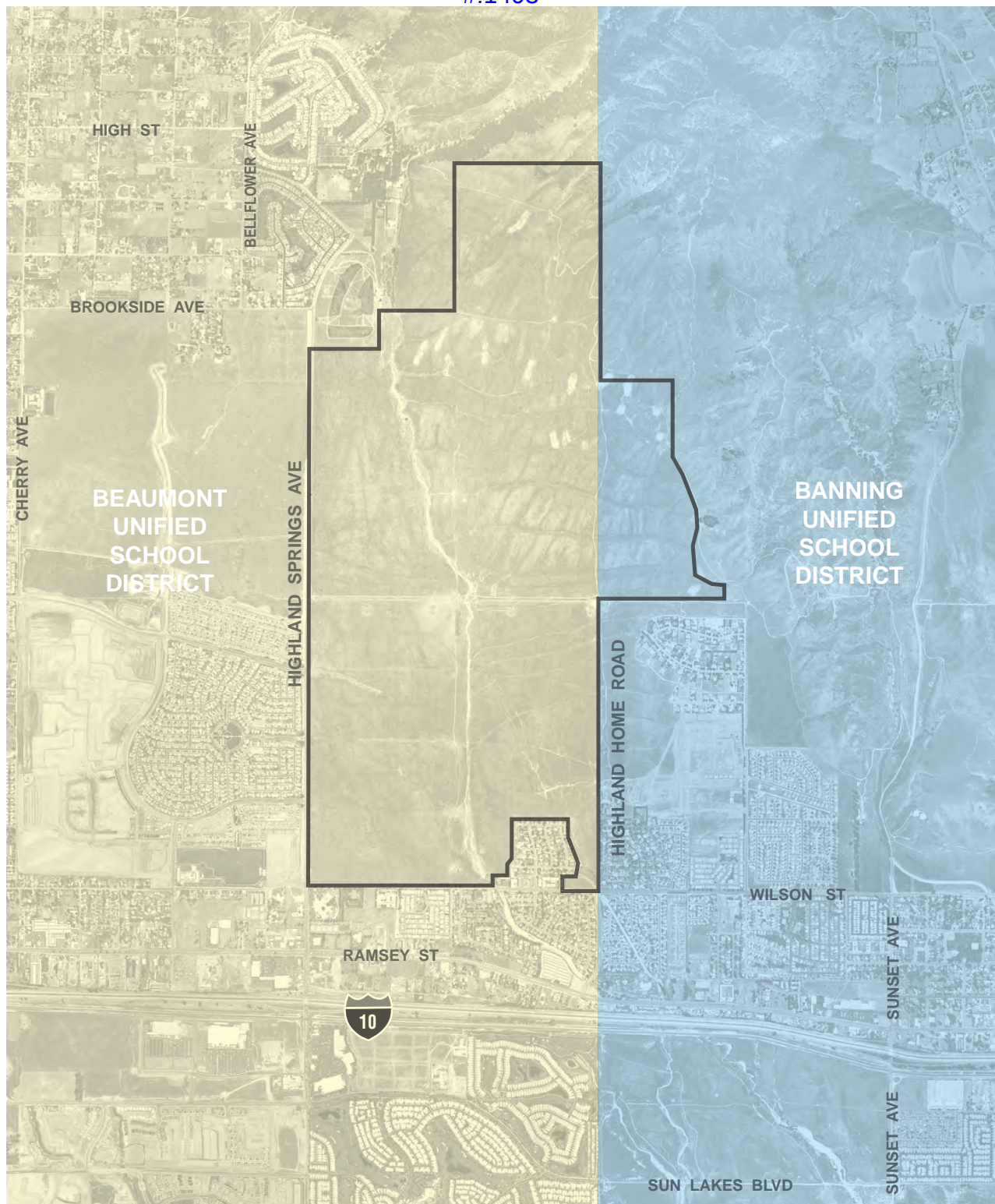
Determination: Less than Significant with Mitigation Incorporated.

At buildout, the City is estimated to generate approximately 88,223 tons of solid waste per year; however, the estimate did not include the application of verifiable diversion factors. The General Plan states that the proposed land uses within the General Plan Study Area are not anticipated to produce unusually high quantities of solid waste. All mitigation measures imposed by the City's General Plan EIR that address solid waste, listed in the Regulatory Framework Section of this analysis, would be applied to the proposed Project. Waste Management Services, which contracts with the City for solid waste disposal, administers a recycling program for the City and also operates transfer stations to which solid waste is transported for sorting and potential recycling prior to being forwarded to area land fills. Mitigation Measure PSU-6 would ensure that the golf course operator implements efficient green waste recycling and diversion practices. Each of the school districts has a waste management and recycling plan in place and coordinates with its respective city and waste

hauler. Existing landfills have significant remaining capacity and also contain land area sufficient to allow for expansion of existing operations and capacity. While cumulative development within the County will increase the volume of solid waste, continuing recycling efforts including those mandated by current and pending legislation, and current State and local codes, should result in increasing reductions in overall solid waste volumes. Cumulative impacts are anticipated to be less than significant and the Project's contribution to cumulative impacts would itself not be cumulatively considerable.

4.12.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Project's impact on landfills would be less than significant in the Project and cumulative conditions with mitigation incorporated.



- Beaumont Unified School District
- Banning Unified School District
- Butterfield Specific Plan Boundary

SOURCE: Beaumont Unified School District,
 "School Districts & Cities Including Spheres of Influence
 in Riverside County", 2008
 Google Earth Imagery (Aerial photo date pre-2009)



NOT TO SCALE

5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR
 Beaumont and Banning USD Boundaries

AR 004152
 EXHIBIT 4.12-1

AR000756

SECTION 4.13

TRAFFIC AND TRANSPORTATION

4.13.1 INTRODUCTION

The purpose of this section is to document the conditions of existing roadways and transportation systems in the Project area, estimate trip generation and distribution characteristics of the Project, identify potentially significant traffic impacts, and recommend mitigation measures to reduce the significance of such impacts. Information in this section is based on the Traffic Impact Analysis for the *Butterfield Specific Plan*, prepared by LSA Associates Inc. (September 15, 2010), *City of Banning General Plan* (January 2006), the *Environmental Impact Report for the City of Banning Comprehensive General Plan and Zoning Ordinance* (June 2005), *City of Banning Municipal Code* (codified through January 2010) and the proposed *Draft Butterfield Specific Plan* (July 2010).

4.13.2 EXISTING CONDITONS

Descriptions of existing freeways, highways, arterial roadways, collectors, and local streets that would serve the Project study area are described below.

4.13.2.1 ENVIRONMENTAL SETTING

The City of Banning General Plan Circulation Element describes the City of Banning and other communities in the Pass Region as being tied together by U.S. Interstate 10 (I-10) as well as a network of arterial roadways. Roadways in the vicinity of the Project include I-10, Highland Springs Avenue, Highland Home Road, and Wilson Street. Refer to Exhibit 4.13-1, *City of Banning General Plan Circulation Element*, and Exhibit 4.13-2, *Existing Roadway System*.

Classifications of roadways within the Project site vicinity, per the General Plan Circulation Element, are described as follows:

Freeways and Highways

Interstate 10 (I-10) is an eight lane divided freeway that runs through Banning, bisecting it into south and north communities. Field Road, Ramsey Street, Hargrave Street, 8th Street, 22nd Street, Sunset Avenue, and Highland Springs Avenue are the access streets that provide interchange access to I-10. The eastern portion of Highland Springs Avenue interchange is within the City of Banning, while the western portion of the interchange in the City of Beaumont. I-10 is within the jurisdiction of the California Department of Transportation (CALTRANS), which regulates maintenance and development of the freeway.

State Highway 243 begins on 8th Street and runs south to Lincoln Street. It continues east on Lincoln Street and turns into San Gorgonio Avenue, which then turns into the Banning-Idyllwild Panoramic Highway.

Major Highways or Arterial Streets

The City of Banning General Plan defines Major Highways, or arterial streets as those primarily for through traffic with limited access, with 4 to 6 lanes in width at build-out. Arterial streets should connect residential, shopping, employment, and recreational activities, but should not encroach upon neighborhoods. The following streets are adopted as arterial streets in the City of Banning General Plan:

Highland Springs Avenue (from Wilson Street to Brookside Avenue)

Highland Springs Avenue is a north/south roadway, providing regional access to the I-10 freeway. Highland Springs Avenue is the dividing/boundary roadway between the City of Banning and the City of Beaumont. The City of Banning General Plan Circulation Element defines Highland Springs Avenue as an Arterial Highway in this segment adjacent to the Project.

Highland Home Road (from Wilson Street to Brookside Avenue)

Highland Home Road is a north/south roadway along the east side of the Butterfield Specific Plan. In the northern part of the Project, Highland Home Road is proposed to bend to the west and connect with Brookside Ave. (an east-west street) at Highland Springs Avenue. The width of Highland Home Road is limited pursuant to the existing homes on the east side immediately north of Wilson Street and the existing approved Tract No. 30906 (Fiesta Development) also on the east side further north. Highland Home Road is designated at minimum as a Major Highway in the City of Banning General Plan.

Wilson Street

Wilson Street, from Highland Springs Avenue to Highland Home Road, is designated a Major Highway in the City of Banning General Plan.

LEVEL OF SERVICE STANDARDS

Intersection Levels of Service: Definition and Criteria

Roadway operations and the relationship between capacity and traffic volumes are generally expressed in terms of levels of service, or LOS, which are defined using the letter grades A through F. These levels recognize that, while an absolute limit exists as to the amount of traffic

traveling through a given intersection (the absolute capacity), the conditions that motorists experience rapidly deteriorate as traffic approaches the absolute capacity. Under such conditions, congestion is experienced.

There is general instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. An upstream queue will then form and continue to expand in length until the demand volume again declines.

A complete description of the meaning of level of service can be found in the Transportation Research Board Special Report 209, *Highway Capacity Manual*. The Manual establishes levels of service A through F. Table 4.13 -1 shows brief descriptions of the six levels of service, as abstracted from the Manual.

Table 4.13-1:
Traffic Level of Service Definitions

LOS	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

Table 4.13-2 shows the level of service criteria for unsignalized and signalized intersections.

**Table 4.13-2:
Level of Service Criteria for Unsignalized and Signalized Intersections**

Level of Service	Unsignalized Intersection Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Consistent with Riverside County guidelines, all study area intersections were analyzed using the 2000 *Highway Capacity Manual* (HCM 2000) analysis methodologies. Levels of service at all intersections were calculated using Traffix 7.8 or Synchro 7 software.

LOS Standards

The Project study area spans three jurisdictions: City of Banning, City of Beaumont, and the County of Riverside (County). In addition, Caltrans has jurisdiction over I-10 and its freeway ramp terminus intersections. Caltrans endeavors to maintain an LOS between C and D at all intersections under its jurisdiction. Therefore, a maximum average delay of 45 seconds per vehicle is considered at Caltrans facilities. The City of Beaumont uses LOS D as the threshold of acceptability during peak hours. The County of Riverside uses LOS D as the threshold of acceptability in community development areas and LOS C in all other areas.

According to the City of Banning General Plan Circulation Element, the City considers LOS C as the upper limit of satisfactory operations except for intersections along Ramsey Street, where LOS D is considered satisfactory. Mitigation is required for any intersection where Project traffic causes the intersection to deteriorate from satisfactory to unsatisfactory operation. The City does not have an adopted criterion that defines significant impact at an already existing deficient intersection; therefore, a conservative criterion was developed to address this potential condition. If an intersection is already operating at an unsatisfactory LOS, any increase in delay due to the addition of one or more cars would constitute a significant Project impact.

It needs to be noted that Highland Springs Avenue defines the western City boundary and jurisdictions of intersections on Highland Springs Avenue are shared by both City of Banning and City of Beaumont/Riverside County.

Following are the study area intersections within the City of Banning that are being evaluated both for LOS C and LOS D standards:

- Highland Springs Avenue/16th Street-Cougar Way;
- Highland Springs Avenue/F Street;
- Highland Springs Avenue/Oak Valley Parkway-14th Street-B Street;
- Highland Springs Avenue/Starlight Avenue-A Street;
- Highland Springs Avenue/8th Street-Wilson Street;
- Highland Springs Avenue/1st Street-Sun Lakes Boulevard;
- Highland Springs Avenue/Potrero Boulevard;
- C Street-Apex Avenue/Wilson Street;
- Highland Home Road/Northern Loop;
- Highland Home Road/Beaumont Road-G Street;
- Highland Home Road/F Street;
- Highland Home Road/D Street;
- Highland Home Road/Wilson Street;
- Sunset Avenue/Wilson Street;
- Sunrise Avenue/Wilson Street;
- 16th Street/Wilson Street;
- 8th Street/Wilson Street;
- 4th Street/Wilson Street; and
- San Gorgonio Avenue/Wilson Street.

The Riverside County CMP has a standard of LOS E or better for CMP facilities. CMP facilities affected by the Project include SR-60, I-10, SR-79 (Beaumont Avenue) south of I-10, and SR-243 south of I-10.

STREETS

LSA Associates conducted an analysis of current traffic conditions in the City of Banning in September 2010. Riverside County traffic study guidelines require analysis of all intersections of General Plan roadways to which the Project will contribute 50 or more peak hour trips not exceeding a 5-mile radius from the Project site, thus a total of 49 intersections and 22 directional (eastbound or westbound) freeway segments in the vicinity of the Project were analyzed. Twelve (12) study intersections are currently signalized; thirty-eight (38) study intersections are stop-sign controlled. Refer to Exhibit 4.13-3, *Study Area Intersections*, for the locations of the intersections analyzed. Also, refer to Table 4.13-3, *Existing Without and plus Project (Phase III)*

Intersection Levels of Service, and Table 4.13-4, *Existing Without and plus Project (Phase III) Freeway Mainline Levels of Service*, for additional information.

Traffic counts were conducted by NDS, Inc. in May 2010. All study area intersections were analyzed using the 2000 *Highway Capacity Manual* (HCM 2000) analysis methodologies. Levels of service at all intersections were calculated using Traffix 7.8 software.

Existing (Baseline) Conditions Levels of Service

An LOS analysis was conducted to evaluate existing a.m. and p.m. peak hour traffic operations at the study area intersections. As shown in Table 4.13-3, the following five intersections currently exceed LOS thresholds:

- I-10 Eastbound Ramps/San Timoteo Canyon Drive [Caltrans] (a.m. and p.m. peak hours);
- Pennsylvania Avenue/I-10 Westbound Ramp [Caltrans] (p.m. peak hour);
- Highland Springs Avenue/6th Street-Ramsey Street (p.m. peak hour);
- Highland Springs Avenue/I-10 Westbound Ramps [Caltrans]; and
- 8th Street/I-10 Eastbound Ramps [Caltrans] (a.m. and p.m. peak hours).

BUTTERFIELD SPECIFIC PLAN
Draft Subsequent EIR

4.13 TRAFFIC AND TRANSPORTATION

Table 4.13-3
Existing Without and plus Project (Phase III) Intersection Levels of Service

Intersection	Control	LOS STD.	A.M. Peak Hour						P.M. Peak Hour					
			Without Project			Plus Project			Without Project			Plus Project		
			V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1. I-10 Eastbound Ramps/San Timoteo Canyon Dr.	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
2. I-10 Westbound Ramps/Oak Valley Pkwy.	TWSC	45s	-	19.6	C	-	31.0	D	-	21.9	C	-	54.0	F
3. Elm Ave./Oak Valley Pkwy.-14th St.	TWSC	D	-	25.9	D	-	71.7	F	-	16.3	C	-	35.1	E
4. Beaumont Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.51	24.0	C	0.68	26.3	C	0.34	23.9	C	0.47	23.1	C
5. Beaumont Ave./8th St.	AWSC	D	0.35	9.8	A	0.41	12.0	B	0.38	10.8	B	0.57	15.0	B
6. Beaumont Ave./I-10 Westbound Ramps	Signal	45s	0.54	24.0	C	0.63	27.6	C	0.60	26.6	C	0.67	28.7	C
7. Beaumont Ave./I-10 Eastbound Ramps	Signal	45s	0.71	23.5	C	0.76	23.5	C	0.73	27.3	C	0.83	29.3	C
8. Beaumont Ave./1st St.	Signal	D	0.71	24.5	C	0.73	24.2	C	0.66	28.5	C	0.76	29.8	C
9. Beaumont Ave./Westward Ave.			Future Intersection			Future Intersection			Future Intersection			Future Intersection		
10. Lamb Canyon Rd./California Ave.	TWSC	C	-	12.6	B	-	13.2	B	-	23.2	C	-	24.7	C
11. Palm Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.61	14.4	B	1.28	76.4	F	0.64	13.9	B	1.32	>100	F
12. Palm Ave./8th St.	AWSC	D	0.37	10.3	B	0.89	24.3	C	0.15	8.0	A	0.44	10.9	B
13. Pennsylvania Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.53	12.6	B	1.17	64.5	F	0.50	11.3	B	1.19	75.5	F
14. Pennsylvania Ave./8th St.	AWSC	D	0.68	14.5	B	1.10	59.7	F	0.46	10.4	B	0.72	20.7	C
15. Pennsylvania Ave./I-10 Westbound Ramp	TWSC	45s	-	24.3	C	-	45.4	E	-	95.2	F	-	>100	F
16. Pennsylvania Ave./I-10 Eastbound Ramp	TWSC	45s	-	14.1	B	-	16.9	C	-	13.7	B	-	17.4	C
17. Pennsylvania Ave./3rd St.	TWSC	D	-	14.8	B	-	18.6	C	-	15.6	C	-	20.5	C
18. Cherry Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.68	15.8	C	1.28	69.9	F	0.46	11.5	B	1.23	72.6	F
19. Starlight Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.36	10.8	B	0.64	19.2	C	0.20	9.0	A	0.63	16.8	C
20. Highland Springs Ave./Brookside Ave.	TWSC	C	-	9.9	A	-	>100	F	-	9.2	A	-	>100	F
21. Highland Springs Ave./16th St.-Cougar Way			Future Intersection			Future Intersection			Future Intersection			Future Intersection		
22. Highland Springs Ave./F St.			Future Intersection			1.25	>100	F	Future Intersection			1.36	>100	F
23. Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Signal	C	0.44	20.8	C	1.18	89.7	F	0.34	17.2	B	1.20	96.6	F
24. Highland Springs Ave./Starlight Ave.-A St.	TWSC	C	-	17.6	C	-	>100	F	-	11.4	B	-	>100	F
25. Highland Springs Ave./8th St.-Wilson St.	Signal	C	0.42	30.1	C	0.88	41.3	D	0.59	27.1	C	1.31	>100	F
26. Highland Springs Ave./6th St.-Ramsey St.	Signal	D	0.41	22.9	C	0.64	26.7	C	0.69	89.00	F	1.10	>100	F
27. Highland Springs Ave./I-10 Westbound Ramps	Signal	45s	0.46	41.0	D	0.62	31.1	C	0.68	74.00	E	0.92	53.9	E
28. Highland Springs Ave./I-10 Eastbound Ramps	Signal	45s	0.58	28.0	C	0.88	62.7	E	0.67	16.20	B	1.22	71.6	E
29. Highland Springs Ave./1st St.-Sun Lakes Blvd.	Signal	C	0.23	30.3	C	0.22	27.6	C	0.29	31.0	C	0.37	28.8	C
30. Highland Springs Ave./Potrero Blvd.	TWSC	C	-	9.6	A	-	10.8	B	-	10.4	B	-	12.7	B
31. C St.-Apex Ave./Wilson St.	TWSC	C	-	14.3	B	-	>100	F	-	14.2	B	-	>100	F
32. Highland Home Rd./Northern Loop			Future Intersection			0.61	42.5	E	Future Intersection			1.16	>100	F
33. Highland Home Rd./Beaumont Rd.-G St			Future Intersection			0.16	12.7	B	Future Intersection			0.24	16.7	C
34. Highland Home Rd./F St.			Future Intersection			0.35	12.7	B	Future Intersection			0.26	11.5	B
35. Highland Home Rd./D St.			Future Intersection			0.41	22.4	C	Future Intersection			0.29	27.7	D
36. Highland Home Rd./Wilson St.	TWSC	C	-	13.2	B	-	>100	F	-	13.2	B	-	>100	F
37. Highland Home Rd./Ramsey St.	TWSC	D	-	10.5	B	-	>100	F	-	12.0	B	-	>100	F
38. Sunset Ave./Wilson St.	AWSC	C	0.56	11.6	B	1.21	79.5	F	0.49	11.8	B	1.16	69.7	F
39. Sunset Ave./Ramsey St.	Signal	D	0.22	23.4	C	0.56	24.0	C	0.24	23.1	C	0.63	25.2	C
40. Sunset Ave./I-10 Westbound Ramps	TWSC	45s	-	10.1	B	-	11.2	B	-	11.4	B	-	15.5	C
41. Sunset Ave./I-10 Eastbound Ramps	TWSC	45s	-	13.9	B	-	34.0	D	-	16.5	C	-	57.8	F
42. Sunrise Ave./Wilson St.	TWSC	C	-	11.4	B	-	25.1	D	-	10.8	B	-	22.0	C
43. 16th St./Wilson St.	TWSC	C	-	9.8	A	-	13.8	B	-	9.8	A	-	14.4	B
44. 8th St./Wilson St.	AWSC	C	0.44	12.3	B	0.82	21.1	C	0.30	9.3	A	0.51	12.1	B
45. 8th St./Ramsey St.	Signal	D	0.45	27.9	C	0.48	28.6	C	0.64	35.6	D	0.70	38.4	D
46. 8th St./I-10 Westbound Ramps	TWSC	45s	-	22.9	C	-	29.3	D	-	16.1	C	-	19.3	C
47. 8th St./I-10 Eastbound Ramps	TWSC	45s	-	>100	F	-	>100	F	-	37.4	E	-	79.8	F
48. 4th St./Wilson St.	AWSC	C	0.33	9.3	A	0.61	12.9	B	0.21	8.2	A	0.45	10.5	B
49. San Geronimo Ave./Wilson St.	AWSC	C	0.34	9.2	A	0.62	12.6	B	0.19	8.5	A	0.43	10.8	B

Exceeds LOS standard.

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

AWSC=All-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.

Note: Intersections 22 & 32-35 are intersections proposed under the Butterfield SP; therefore, they are analyzed within the "Plus Project" column. Intersections 9 & 21 are not constructed at this time and are not part of the proposed Project; thus analysis of these intersections are excluded from Table 4.13-3, but are assumed to be constructed under the year 2022, 2032, 2042 and General Plan buildout analyses.

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Table 4.13-4
Existing Without and plus Project (Phase III) Freeway Mainline Levels of Service

Freeway Segment	Lanes			A.M. Peak Hour ^a								P.M. Peak Hour ^a							
				Without Project				With Project				Without Project				With Project			
	Mixed Flow	HOV	Cap.	Total Vol.	PHF ^b	V/C	LOS	Total Vol.	PHF ^b	V/C	LOS	Total Vol.	PHF ^b	V/C	LOS	Total Vol.	PHF ^b	V/C	LOS
EASTBOUND																			
Interstate 10																			
Cherry Valley Boulevard to Oak Valley Parkway	3	0	6,900	5,135	0.76	D		5,214	0.77	D		5,448	0.81	D		5,624	0.83	D	
Oak Valley Parkway to SR-60	3	0	6,900	5,099	0.75	D		5,146	0.76	D		5,331	0.79	D		5,437	0.80	D	
SR-60 to Beumont Avenue	4	0	9,200	7,152	0.79	D		7,326	0.81	D		7,501	0.83	D		7,889	0.88	D	
Beumont Avenue to Pennsylvania Avenue	4	0	9,200	7,217	0.80	D		7,453	0.83	D		7,556	0.84	D		7,994	0.89	E	
Pennsylvania Avenue to Highland Springs Avenue	4	0	9,200	7,591	0.84	D		7,797	0.87	D		7,857	0.87	D		8,335	0.92	E	
Highland Springs Avenue to Sunset Avenue	4	0	9,200	7,335	0.81	D		7,416	0.82	D		7,559	0.84	D		7,634	0.85	D	
Sunset Avenue to 22nd Street	4	0	9,200	7,164	0.80	D		7,404	0.82	D		7,321	0.81	D		7,519	0.83	D	
22nd Street to 8th Street	4	0	9,200	6,992	0.78	D		7,175	0.80	D		7,128	0.79	D		7,276	0.81	D	
8th Street to Hargrave Street	4	0	9,200	6,821	0.76	D		6,912	0.77	D		6,955	0.77	D		7,029	0.78	D	
Hargrave Street to Ramsey Street	4	0	9,200	6,303	0.70	D		6,394	0.71	D		6,425	0.71	D		6,499	0.72	D	
SR-60																			
Jack Rabbit Trail to I-10	2	0	4,600	2,181	0.49	C		2,308	0.51	C		2,440	0.54	C		2,722	0.60	C	
WESTBOUND																			
Interstate 10																			
Cherry Valley Boulevard to Oak Valley Parkway	3	0	6,900	4,219	0.63	C		4,371	0.65	C		4,296	0.64	C		4,420	0.65	C	
Oak Valley Parkway to SR-60	3	0	6,900	4,088	0.60	C		4,179	0.62	C		4,263	0.63	C		4,337	0.64	C	
SR-60 to Beumont Avenue	4	0	9,200	5,719	0.64	C		6,054	0.67	C		5,918	0.66	C		6,190	0.69	D	
Beumont Avenue to Pennsylvania Avenue	4	0	9,200	5,783	0.64	C		6,179	0.69	D		5,989	0.66	C		6,310	0.70	D	
Pennsylvania Avenue to Highland Springs Avenue	4	0	9,200	5,946	0.66	C		6,342	0.70	D		6,243	0.69	D		6,563	0.73	D	
Highland Springs Avenue to Sunset Avenue	4	0	9,200	5,693	0.63	C		5,740	0.64	C		6,023	0.67	C		6,134	0.68	D	
Sunset Avenue to 22nd Street	4	0	9,200	5,508	0.61	C		5,635	0.63	C		5,842	0.65	C		6,124	0.68	C	
22nd Street to 8th Street	4	0	9,200	5,350	0.59	C		5,445	0.60	C		5,695	0.63	C		5,907	0.66	C	
8th Street to Hargrave Street	4	0	9,200	5,220	0.58	C		5,267	0.58	C		5,557	0.62	C		5,663	0.63	C	
Hargrave Street to Ramsey Street	4	0	9,200	4,822	0.54	C		4,869	0.54	C		5,134	0.57	C		5,240	0.58	C	
SR-60																			
Jack Rabbit Trail to I-10	2	0	4,600	2,019	0.45	B		2,263	0.50	C		1,336	0.34	B		1,734	0.39	B	

^a Existing level of service assumed.
^b Peak Hour Factor: PHF volume assumed a PHF of 0.95.

Note:
 According to the HCM, the capacity of a single-lane freeway is 2,400 vehicles per hour, and the capacity of an HOV lane is 1,000 vehicles per hour.

FREEWAYS

An examination was also made of freeway conditions along the Interstate 10 and SR-60 freeway within the Project study area. Ten freeway segments along Interstate 10 and one segment off of SR-60 that leads to I-10 most likely to be affected by the proposed Project were analyzed. Existing Annual Average Daily Traffic (AADT) volume data published by Caltrans in 2008 were used to develop the peak hour volumes for freeway segments. Total volumes on study area segments were divided into passenger vehicles and truck volumes based on the truck percentages available from the Caltrans 2008 AADT truck counts for each segment. Consistent with *Highway Capacity Manual* methodologies, passenger car equivalent (PCE) volumes for the freeway segments were computed using a PCE factor of 1.5 for all trucks, as the impact of trucks on freeway operations is lower than the impact at intersection operations. The peak hour segment volumes for the freeway segments were calculated by applying percentages to AADT in peak hour in each of these segments. The directional split of traffic volumes on each segment was computed using the Caltrans split of peak hour traffic in peak direction for these segments.

In order to analyze the existing conditions (2010), the 2008 count data were adjusted by adding growth for a period of two years to develop the 2010 traffic volume along the study area freeway segments. Table 4.13-5 shows the existing a.m. and p.m. peak hour segment volumes on the study area freeway segments.

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Table 4.13-4 summarizes the existing a.m. and p.m. peak hour freeway mainline traffic volumes and levels of service for the freeway segments on I-10 and SR-60. As shown in Table 4.13-5, all freeway segments are currently operating at LOS E or better during the a.m. and p.m. peak hours in both directions.

Table 4.13-5
Existing (2010) Freeway Segment (PCE) Volumes

Freeway Segment	A.M. Peak Hour											
	Eastbound						Westbound					
	Year 2008	Year 2045	Growth 2008-2010	Total PCE ¹	Project Trips	W/ Project PCE	Year 2008	Year 2045	Growth 2008-2010	Total PCE ¹	Project Trips	W/ Project PCE
Interstate 10												
Cherry Valley Boulevard to Oak Valley Parkway	5,060	6,451	75	5,135	79	5,214	3,829	11,045	390	4,219	152	4,371
Oak Valley Parkway to SR-60	5,014	6,591	85	5,099	47	5,146	3,794	9,228	294	4,088	91	4,179
SR-60 to Beaumont Avenue	7,099	8,078	53	7,152	174	7,326	5,371	11,815	348	5,719	335	6,054
Beaumont Avenue to Pennsylvania Avenue	7,211	7,870	36	7,247	206	7,453	5,456	11,499	327	5,783	396	6,179
Pennsylvania Avenue to Highland Springs Avenue	7,584	7,718	7	7,591	206	7,797	5,738	9,587	208	5,946	396	6,342
Highland Springs Avenue to Sunset Avenue	7,302	7,729	23	7,325	91	7,416	5,524	8,654	169	5,693	47	5,740
Sunset Avenue to 22nd Street	7,125	7,851	39	7,164	244	7,408	5,390	7,568	118	5,508	127	5,635
22nd Street to 8th Street	6,955	7,643	37	6,992	183	7,175	5,262	6,885	88	5,350	95	5,445
8th Street to Hargrave Street	6,785	7,456	36	6,821	91	6,912	5,134	6,718	86	5,220	47	5,267
Hargrave Street to Ramsey Street	6,269	6,889	34	6,303	91	6,394	4,743	6,206	79	4,822	47	4,869
SR-60												
Jack Rabbit Trail to I-10	2,150	2,727	31	2,181	127	2,308	1,908	3,957	111	2,019	244	2,263

Freeway Segment	P.M. Peak Hour											
	Eastbound						Westbound					
	Year 2008	Year 2045	Growth 2008-2010	Total PCE ¹	Project Trips	W/ Project PCE	Year 2008	Year 2045	Growth 2008-2010	Total PCE ¹	Project Trips	W/ Project PCE
Interstate 10												
Cherry Valley Boulevard to Oak Valley Parkway	5,093	11,664	355	5,448	176	5,624	3,959	10,187	337	4,296	124	4,420
Oak Valley Parkway to SR-60	5,046	10,322	285	5,331	106	5,437	3,923	10,209	340	4,263	74	4,337
SR-60 to Beaumont Avenue	7,143	13,765	358	7,501	388	7,889	5,554	12,280	364	5,918	272	6,190
Beaumont Avenue to Pennsylvania Avenue	7,257	12,419	279	7,536	458	7,994	5,642	12,054	347	5,989	321	6,310
Pennsylvania Avenue to Highland Springs Avenue	7,633	11,775	224	7,857	458	8,315	5,934	11,632	308	6,242	321	6,563
Highland Springs Avenue to Sunset Avenue	7,348	11,251	211	7,559	74	7,633	5,713	11,539	315	6,028	106	6,134
Sunset Avenue to 22nd Street	7,170	9,969	151	7,321	198	7,519	5,575	10,511	267	5,842	282	6,124
22nd Street to 8th Street	6,999	9,381	129	7,128	148	7,276	5,441	10,139	254	5,695	212	5,907
8th Street to Hargrave Street	6,829	9,153	126	6,955	74	7,029	5,309	9,893	248	5,557	106	5,663
Hargrave Street to Ramsey Street	6,309	8,456	116	6,425	74	6,499	4,905	9,140	229	5,134	106	5,240
SR-60												
Jack Rabbit Trail to I-10	2,259	5,615	181	2,440	282	2,722	1,358	4,651	178	1,536	198	1,734

¹ Passenger Car Equivalent volume, using a PCE factor of 1.5 for all trucks, based on HCM.

* The interchange on Pennsylvania Avenue is expected to be upgraded to a full diamond interchange before General Plan build-out year.

PUBLIC AND ALTERNATIVE TRANSPORTATION

Public transportation in the City of Banning is provided by Pass Transit. Pass Transit provides dial-a-ride service and bus services.

Transit

The Transit Fixed Route Division of Banning operates three bus routes. Two routes serve the City of Banning (Northern and Southern Routes) and one runs from Banning to Cabazon (Cabazon Route). Routes can also be connected with Riverside Transit Authority (RTA). Headways are approximately 60 minutes on weekdays and weekends. The nearest transit stop

to the Project site is at the southeast corner of Highland Springs Avenue and Wilson Street, immediately across from the Project site.

Dial-A-Ride

The dial-a-ride service is a curb-to-curb service for the general public and has experienced substantial growth since its inception. The dial-a-ride service requires reservation and is wheelchair accessible.

Bicycles

There are currently no bikeways within the City of Banning's General Plan planning area. Development of a network of bikeways is constrained by the existing condition of street right-of-ways. However, future bike routes are being considered because a complete network of bikeways and pathways within an urban environment helps to reduce the reliance on cars, and contributes to a healthier city.

4.13.2.2 REGULATORY FRAMEWORK

FEDERAL

The Project Study Area includes I-10, an interstate freeway under the jurisdiction of Caltrans and the Federal Highway Administration (FHWA), and SR-60, a major east-west route under the jurisdiction of Caltrans. Federal funding for these facilities would have to comply with Caltrans-administered FHWA procedures, and any improvements to the SR-60 or I-10 interchanges would have to comply with Caltrans procedures, many of which reflect strict FHWA regulations¹.

STATE

Caltrans

As noted above, Caltrans has primary jurisdiction over improvements to SR-60, and acts as the federal representative for improvements to I-10 under a federal delegation agreement². FHWA maintains certain review and approval authority over any project affecting the I-10.

¹ FHWA and Caltrans regulations can be found at www.dot.ca.gov/ser.

² http://www.dot.ca.gov/hq/env/nepa_pilot/index.htm.

Senate Bill 375

SB 375 is California state law that became effective January 1, 2009. The law requires California's Air Resources Board (CARB) to develop regional reduction targets for greenhouse gas (GHG) emissions associated with passenger vehicles and light duty truck traffic. SB 375 also prompts the creation of regional plans to reduce emissions from vehicle use throughout the state of California. California has 18 Metropolitan Planning Organizations (MPOs), which are tasked with creating Sustainable Community Strategies through integrated land use and transportation planning, as well as demonstrate an ability to attain the proposed reduction targets by 2020 and 2035. The Southern California Association of Governments (SCAG) is designated as the MPO for the Project region. Refer to Section 4.3, *Air Quality*, and Section 4.5, *Climate Change* for more discussion on SB 375.

REGIONAL

Southern California Association of Governments (SCAG):

On May 8, 2008, the Regional Council of the Southern California Association of Governments (SCAG) adopted the 2008 Regional Transportation Plan (RTP). The 2008 RTP emphasizes the importance of system management, goods movement, and innovative transportation financing. The 2008 RTP strives to provide a regional investment framework to address the region's transportation and related challenges. It also looks to strategies that preserve and enhance the existing transportation system and integrate land use into transportation planning. The 2008 RTP includes goals and policies applicable to transportation.

Riverside County Congestion Management Program:

As required under 1990's Proposition 111, every county in California is required to develop a Congestion Management Program (CMP) that looks at the links between land use, transportation and air quality. In its role as the Riverside County Congestion Management Agency, Riverside County Transportation Commission (RCTC) prepares and periodically updates the county's CMP to meet federal Congestion Management System guidelines as well as state CMP legislation. The current CMP was adopted by RCTC in March 2010.

SCAG is required under federal planning regulations to determine that county CMPs within the SCAG region are consistent with the RTP. RCTC does not require Traffic Impact Assessments (TIA's) for development proposals. However, local agencies are required to maintain minimum level of service (LOS) thresholds included in their respective general plans. Therefore, TIA's on developments are required by the local agencies. Local agencies whose developments impact the CMP system by causing the LOS on a non-exempt segment to fall to "F" must prepare deficiency plans. These plans outline specific mitigation measures and a schedule for mitigating the deficiency.

Section 65089.3 (c) of the Government Code requires that RCTC, as the Congestion Management Agency (CMA), in consultation with the SCAG, cities and the county, develop a uniform database on traffic impacts for the use in a countywide transportation model. RCTC, in consultation with SCAG, must approve transportation computer models that will be used by local jurisdictions and the county to determine the quantitative impacts of development on the circulation system. Local transportation models shall be consistent with the databases used by SCAG.

LOCAL

City of Banning – General Plan Circulation Element

The *City of Banning General Plan* Circulation Element standard provides that LOS C is the upper limit of satisfactory operations except for intersections along Ramsey Street, where LOS D is considered satisfactory. Mitigation is required for any intersections where Project traffic causes the intersection to deteriorate from satisfactory to unsatisfactory operation. The City does not have an adopted criterion that defines significant impact at an existing deficient intersection; therefore, a conservative criterion was developed to address this potential condition. If an intersection is already operating at an unsatisfactory LOS, any increase in delay due to the addition of one or more cars would constitute a significant Project impact. This criterion was applied to study intersections in the jurisdictions of the City of Banning, City of Beaumont, and the County of Riverside.

City of Banning – Trip Reduction Plan

Chapter 8.60 of the *City of Banning Municipal Code* is intended to protect the public health, welfare and safety by reducing congestion and air pollution caused by vehicle trips and vehicle miles traveled. It requires provision of on-site space to support alternative travel modes, and is applicable to new development that could employ one hundred or more persons, based upon the following methodology:

Land Use Category	Gross Square Feet per Employee
Retail Commercial	500 square feet per employee
Office/Professional	300 square feet per employee
Industrial/Manufacturing	500 square feet per employee
Warehouse	1,000 square feet per employee
Hotel/Motel	0.5 employees per guest room
Hospital	300 square feet per employee

For mixed-use developments, the Project employment factor shall be based upon the proportion of the development devoted to each land use. All applicable developments shall incorporate facilities and/or programs in their development plans sufficient to attain a twelve percent work-related trip reduction from the expected number of trips related to the Project as indicated in the Trip Generation Handbook published by the Institute of Traffic Engineers.

Facilities provided in accordance with the provisions may include but are not limited to:

- Preferential parking for carpool vehicles;
- Bicycle parking and shower facilities;
- Information center for transportation alternatives;
- Rideshare vehicle loading area;
- Vanpool vehicle accessibility;
- Bus stop improvements;
- On-site child care facilities;
- Local TSM and road improvements;
- Facilities to encourage telecommuting;
- Contributions to support regional facilities designed to reduce vehicle trips and miles traveled;
- On-site amenities, such as cafeterias and restaurants, automated teller machines and other services that would eliminate the need for additional trips.

PARKING

The *Banning Municipal Code* establishes parking requirements for residential, institutional, commercial and industrial development, as described in Table 4.13-6, *City of Banning Parking Requirements*.

**Table 4.13-6
City of Banning Parking Requirements**

Unit Type	Parking Spaces Required	
Single Family Residential	Two covered spaces within an enclosed garage	
Multi-Family Residential:	Studio and one bedroom	1 covered space per unit, plus 1 uncovered guest parking space for every 4 units
	2 bedrooms	2 covered spaces per unit, plus one uncovered guest parking space for every 4 units
	3 bedrooms or more	3 covered spaces per unit, plus one uncovered guest parking space for every 4 units
Commercial/Office	Golf course	6 spaces per hole, plus any spaces required for incidental uses such as pro shops, bars, banquet rooms, etc.
	Retail Commercial	1 space for each 250 square feet of gross floor area.
	Shopping Centers	1 space for each 250 sq ft of gross floor area for tenants within the main structure and in stand alone buildings. 1 space for each 225 sq ft of gross floor area for single tenants with over 15,000 square feet.
	General Offices	For up to 2000 square feet of gross floor area, 1 space for each 200 sq ft For 2001 to 7500 square feet of gross floor area, 1 space for each 250 sq ft. For over 7500 square feet of gross floor area, 1 space for each 300 sq ft
Restaurants		1 space for each 35 sq feet of public seating area, plus 1 space for each 200 sq ft of all other gross floor area, with a minimum of ten spaces.
Schools	Elementary/junior high	3 spaces for each classroom
	High school	8 spaces for each classroom
Source: Banning Municipal Code, Chapter 17.28		

4.13.3 SIGNIFICANCE THRESHOLD CRITERIA

The criteria used to determine the significance of potential impacts related to traffic and transportation are from the Initial Study checklist in Appendix G of the State CEQA Guidelines. The Project would result in a significant impact related to traffic and transportation if it would:

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- e) Result in inadequate emergency access;
- f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

4.13.4 IMPACT ANALYSIS AND MITIGATION MEASURES

ANALYTIC METHOD

The traffic and transportation analysis uses a methodology consistent with Riverside County guidelines. As noted above, the previously approved Deutsch Specific Plan and certified Deutsch Specific Plan EIR addressed development of the Project site with up to 5,400 dwelling units. This analysis reflects the currently proposed Butterfield Specific Plan, including the off-site infrastructure and 21-acre unincorporated parcel. The traffic impact study analyzes existing (baseline) conditions through General Plan build-out plus Project conditions to identify potential impacts and mitigation measures per CEQA. Interim Phases between the site's initial existing (baseline) conditions and General Plan build-out plus Project conditions are also analyzed and summarized within the Traffic Impact Assessment (TIA), Appendix I.

Prior to preparing this traffic impact analysis, a Scoping Agreement for the TIA was developed and approved by the City. Based on market conditions and current absorption rates, year 2042 has been identified as the Project build-out year, which was included in the Scoping Agreement.

The initial Project construction is not expected to generate traffic until 2012 and the Project builds out over a 30-year period from 2012 to 2042. It should also be noted that the Highland Home Road/Interstate 10 (I-10) interchange is not a funded project and has not been assumed to be in place (constructed) and operational by 2042 or by the General Plan Build-out conditions. Hence, all the scenarios have been analyzed without assuming the extension of Highland Home Road south of Ramsey Street, to connect to I-10 or over the freeway to connect to Sun Lakes Boulevard.

Project Impacts and Cumulative Impacts

This section focuses on the “Project” impacts, determined by adding 100% of Project trips to the existing road system. The Cumulative Impacts discussion following this is based on General Plan Buildout conditions, including Project traffic. Appendix I, *Traffic Impact Assessment*, provides additional analysis of interim traffic conditions (noted below), as well as comparative analyses of General Plan buildout “with and without” the Project, in addition to a discussion comparing General Plan buildout improvements required based on an LOS C and LOS D standard.

Interim Condition Assumptions

The City approved year 2042 to be identified as the Project build-out year based on initial Project uses not generating traffic until 2012 and the Project building out over a 30-year period from 2012 to 2042. Traffic analysis has been conducted in Appendix I, *Traffic Impact Analysis* for year 2022, when an approximation of an initial phase (Phase I) of the Project may be completed and for year 2032, when an approximation of a second phase (Phase II) of the Project may be completed. These interim year analyses are addressed in further detail in Appendix I, *Traffic Impact Analysis*.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

Existing local, State, and federal regulations noted below will avoid or mitigate potential traffic and transportation impacts. The following Project design features will also reduce, avoid or offset potentially adverse traffic and transportation impacts (refer to Section 4.5, *Climate Change*, for additional measures related to reducing Project traffic impacts).

1. The Project proposes non-vehicular circulation facilities that will include bicycle lanes, trails, pathways, and sidewalks that facilitate and encourage alternative non-vehicular modes of transportation that would reduce vehicular traffic throughout the Butterfield Specific Plan area.
2. The Project proposes mixed use commercial, recreational and school facilities within the Specific Plan, which will reduce vehicle trips to the adjacent City and regional street system.

3. The Project incorporates substantial circulation system improvements into the Specific Plan, including Highland Home Road extension, retention of a local frontage street to serve existing residences along existing Highland Home Road adjacent to the Project, and allowance for ultimate ROW required for adjacent City streets.
4. The Project has provided for emergency secondary access, at the request of City staff, within PAs 5 and 11.
5. The Butterfield Specific Plan will allow and provide for the use of electric Low Speed Vehicles (LSV's) or Neighborhood Electric Vehicles (NEV's) on all internal Project streets. The Butterfield Specific Plan proposes roadway cross sections that provide striped dual NEV and bike lanes on the right side of all proposed Collector Streets.
6. City of Banning Pass Transit and Riverside County Transit Agencies shall be consulted, in conjunction with Project development, to coordinate the potential for expanded transit/bus service and vanpools, and to discuss and implement potential transit turnout locations within the Project area.

PROJECT IMPACT ANALYSIS

***Note to the reader:** This section has been organized to first provide an overview of the Project traffic impact methodology, as it relates to the "Existing plus Project" condition. Following this summary, and resultant Project trip generation, trip distribution, and calculated intersection and freeway levels of service, a discussion of recommended Project mitigation follows. Responses to individual CEQA checklist significance criteria are then addressed based on the overall Project traffic impact analysis that follows. The TIA, contained in Appendix I, provides extensive additional discussion, tables, exhibits and worksheets.*

Project Trip Generation

Trip generation for the proposed Project was calculated using rates for Land Use 210 ("Single Family Detached Housing"), Land Use 230 ("Residential Condominium/Townhomes"), Land Use 820 ("Shopping Center"), Land Use 430 ("Golf Course"), and Land Use 520 ("Elementary School"), from the Institute of Transportation Engineers (ITE) *Trip Generation*, 8th Edition. Retail establishments typically draw some trips from traffic passing the site on an adjacent street. These trips are not "new" trips and were already occurring on the adjacent street system prior to the development of the commercial site but enter the commercial site en route to some other destination. These trips are referred to as "pass-by" trips and only affect traffic at the project driveways. Pass-by trips were adjusted from the total gross trips by taking pass-by trip percentages for the proposed commercial land uses from the ITE *Trip Generation Handbook* (2004) for Land Use 820 ("Shopping Center"). As is typical of most mixed-use projects, a percentage of trips generated by the project will be trips entirely within the Project itself, such

as a trip from a retail store to a residence within the Project or a trip from home (residence) to school with the Project. These trips are referred to as “internal trips” and do not affect the surrounding street traffic or even the Project driveways. Internal trips were calculated using the Project select zone model plots obtained from the Pass Area Model (PAM; used for City of Banning General Plan Update, June 2005).

Table 4.13-7, *Project Trip Generation*, summarizes the trip generation by phase for the Project during the a.m. and p.m. peak hours.

As shown in Table 4.13-7, Phase I (Year 2022) is expected to generate 2,427 trips during the a.m. peak hour, 3,087 trips during the p.m. peak hour, and 34,049 daily trips. Phases I and II (Year 2032) are expected to generate 3,527 trips during the a.m. peak hour, 4,542 trips during the p.m. peak hour, and 48,156 daily trips. Project Completion (Year 2042) is expected to generate 4,626 trips during the a.m. peak hour, 5,998 trips during the p.m. peak hour, and 62,263 daily trips.

Table 4.13-7
Project Trip Generation

Land Use	Units	A.M. Peak Hour			P.M. Peak Hour			Daily	
		In	Out	Total	In	Out	Total		
Phase I - Year 2022									
Residential ¹	1,394 DU	265	780	1,045	878	530	1,408	13,341	
Commercial ²	549 TSF								
Gross Trips		338	216	554	1,200	1,279	2,480	25,944	
Pass By Trips ³		(80)	(80)	(161)	(359)	(359)	(719)	(7,521)	
Net New Trips		257	136	393	841	920	1,761	18,423	
Condominium/Townhouse ⁴	402 DU	30	147	177	140	69	209	2,334	
Elementary School ⁵	200 TSF	584	458	1,042				3,092	
Golf Course ⁶	18 Holes	32	8	40	23	28	51	643	
Internal Trip Capture ⁷	10%	(117)	(153)	(270)	(188)	(155)	(343)	(3,783)	
Total Phase I		1,051	1,376	2,427	1,694	1,392	3,087	34,049	
Phase II - Year 2032									
Residential ¹	1,394 DU	265	780	1,045	878	530	1,408	13,341	
Condominium/Townhouse ⁴	402 DU	30	147	177	140	69	209	2,334	
Internal Trip Capture (Phases I & II) ⁷	10%	(146)	(246)	(392)	(290)	(215)	(505)	(5,351)	
Total Phase I and II		1,316	2,210	3,527	2,610	1,932	4,542	48,156	
Phase III - Year 2042									
Residential ¹	1,394 DU	265	780	1,045	878	530	1,408	13,341	
Condominium/Townhouse ⁴	402 DU	30	147	177	140	69	209	2,334	
Internal Trip Capture (Phases I, II & III) ⁷	10%	(176)	(338)	(514)	(392)	(275)	(666)	(6,918)	
Total Phase I, II and III		1,582	3,044	4,626	3,526	2,471	5,998	62,263	
Gross Project Trip Generation		1,757	3,383	5,140	3,918	2,746	6,664	69,181	
Total Internal Trip Capture		(176)	(338)	(514)	(392)	(275)	(666)	(6,918)	
Net Total Trip Generation		1,582	3,044	4,626	3,526	2,471	5,998	62,263	

¹Rates based on Land Use 210 - Single Family Detached Housing from Institute of Transportation Engineers (ITE) Trip Generation, 8th Edition.²Rates based on Land Use 820 - Shopping Center from ITE Trip Generation, 8th Edition.³Pass-By Rates based on Land Use 820 - Shopping Center from ITE Trip Generation Handbook, 2nd Edition.⁴Rates based on Land Use 230 - Residential Condominium/Townhomes from ITE Trip Generation, 8th Edition.⁵Rates based on Land Use 520 - Elementary School from ITE Trip Generation, 8th Edition.⁶Rates based on Land Use 430 - Golf Course from ITE Trip Generation, 8th Edition.⁷Internal Trip Capture Rates based on Project Select Zone from the Pass Area Model

Trip Distribution and Assignment

Project trip distribution patterns were developed using the PAM select zone trip assignment. Since the PAM considers the General Plan Build-out roadway network configuration, trip distribution patterns for existing plus Project and year 2022 plus Project scenarios were adjusted based on the existing roadway network configuration.

Exhibit 4.13-4 illustrates the trip distribution pattern for Existing and Year 2022 scenarios. Exhibit 4.13-5 illustrates the trip distribution pattern for Year 2032, Year 2042, and General Plan Build-Out scenarios. Exhibit 4.13-4 and Exhibit 4.13-5 illustrate the a.m. and p.m. peak hour Project trips for existing plus Project conditions at the study area intersections. Appendix I, *Traffic Impact Analysis*, Exhibit 4.13-6 and Table 4.13-7 illustrate the a.m. and p.m. peak hour project trips for Year 2042 project completion and General Plan Build-out year conditions at the study area intersections.

Existing (Baseline) plus Project Intersection Levels of Service

A level of service analysis was conducted to evaluate existing (baseline) plus Project a.m. and p.m. peak hour traffic operations at the study area intersections. As shown in Table 4.13-3, *Existing Without and plus Project (Phase III) Intersection Levels of Service*, 25 intersections exceed LOS thresholds, prior to mitigation. Table 4.13-8 shows that, with mitigation recommended below, all intersections will function at acceptable levels of service. However, as addressed below and in the following “Potential Impacts Due To Traffic Mitigation”, and “Proposed Intersection Improvements – Funding Programs/Sources”, mitigation of certain Project-related impacts in other jurisdictions (besides Banning) are outside the control of the Applicant and the City of Banning, and/or would require substantial ROW or otherwise may not be feasible to construct. Therefore, these locations may have unavoidable significant impacts associated with either Project or cumulative traffic levels.

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4.13 TRAFFIC AND TRANSPORTATION

Table 4.13-8
Existing plus Project Mitigation Intersection Levels of Service

Intersection	Control	LOS STD.	A.M. Peak Hour			P.M. Peak Hour		
			V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1 . I-10 Eastbound Ramps/San Timoteo Canyon Dr.	Signal	45s	0.79	15.8	B	0.71	21.6	C
2 . I-10 Westbound Ramps/Oak Valley Pkwy.	Signal	45s	0.47	8.8	A	0.56	13.2	B
3 . Elm Ave./Oak Valley Pkwy.-14th St.	TWSC	D	-	15.6	C	-	12.7	B
4 . Beaumont Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.68	26.3	C	0.47	23.1	C
5 . Beaumont Ave./8th St.	AWSC	D	0.41	12.0	B	0.57	15.0	B
6 . Beaumont Ave./I-10 Westbound Ramps	Signal	45s	0.63	27.6	C	0.67	28.7	C
7 . Beaumont Ave./I-10 Eastbound Ramps	Signal	45s	0.76	23.5	C	0.83	29.3	C
8 . Beaumont Ave./1st St.	Signal	D	0.73	24.2	C	0.76	29.8	C
9 . Beaumont Ave./Westward Ave.			Future Intersection			Future Intersection		
10 . Lamb Canyon Rd./California Ave.	TWSC	C	-	13.2	B	-	24.7	C
11 . Palm Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.49	14.7	B	0.52	8.4	A
12 . Palm Ave./8th St.	AWSC	D	0.89	24.3	C	0.44	10.9	B
13 . Pennsylvania Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.60	14.9	B	0.65	15.7	C
14 . Pennsylvania Ave./8th St.	AWSC	D	0.92	34.2	D	0.71	18.6	C
15 . Pennsylvania Ave./I-10 Westbound Ramp	Signal	45s	0.55	14.8	B	0.61	19.5	B
16 . Pennsylvania Ave./I-10 Eastbound Ramp	TWSC	45s	-	16.9	C	-	17.4	C
17 . Pennsylvania Ave./3rd St.	TWSC	D	-	18.6	C	-	20.5	C
18 . Cherry Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.65	22.2	C	0.52	24.0	C
19 . Starlight Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.64	19.2	C	0.63	16.8	C
20 . Highland Springs Ave./Brookside Ave.	AWSC	C	0.68	19.9	C	0.88	24.5	C
21 . Highland Springs Ave./16th St.-Congar Way			Future Intersection			Future Intersection		
22 . Highland Springs Ave./F St.	Signal	C	0.61	20.5	C	0.79	21.3	C
23 . Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Signal	C	0.88	34.8	C	0.85	31.2	C
24 . Highland Springs Ave./Starlight Ave.-A St.	Signal	C	0.85	31.8	C	0.87	30.9	C
25 . Highland Springs Ave./8th St.-Wilson St.	Signal	C	0.75	30.9	C	0.77	27.7	C
26 . Highland Springs Ave./6th St.-Ramsey St.	Signal	D	0.70	28.4	C	0.82	36.1	D
27 . Highland Springs Ave./I-10 Westbound Ramps	Signal	45s	0.53	10.2	B	0.75	20.3	C
28 . Highland Springs Ave./I-10 Eastbound Ramps	Signal	45s	0.59	20.2	C	0.78	24.7	C
29 . Highland Springs Ave./1st St.-Sun Lakes Blvd.	Signal	C	0.22	28.1	C	0.37	29.0	C
30 . Highland Springs Ave./Potrero Blvd.	TWSC	C	-	10.8	B	-	12.7	B
31 . C St.-Apex Ave./Wilson St.	Signal	C	0.72	27.6	C	0.78	28.9	C
32 . Highland Home Rd./Northern Loop	Signal	C	0.52	18.9	B	0.65	21.2	C
33 . Highland Home Rd./Beaumont Rd.-G St	TWSC	C	-	12.7	B	-	16.7	C
34 . Highland Home Rd./F St.	TWSC	C	-	12.7	B	-	11.5	B
35 . Highland Home Rd./D St.	Signal	C	0.49	14.2	B	0.81	15.2	B
36 . Highland Home Rd./Wilson St.	Signal	C	0.56	28.3	C	0.83	34.4	C
37 . Highland Home Rd./Ramsey St.	Signal	D	0.53	22.5	C	0.60	17.5	B
38 . Sunset Ave./Wilson St.	Signal	C	0.66	13.1	B	0.68	18.4	B
39 . Sunset Ave./Ramsey St.	Signal	D	0.56	24.0	C	0.63	25.2	C
40 . Sunset Ave./I-10 Westbound Ramps	TWSC	45s	-	11.2	B	-	15.5	C
41 . Sunset Ave./I-10 Eastbound Ramps	TWSC	45s	-	19.6	C	-	21.5	C
42 . Sunrise Ave./Wilson St.	TWSC	C	0.82	19.7	C	0.70	16.0	C
43 . 16th St./Wilson St.	TWSC	C	-	13.8	B	-	14.4	B
44 . 8th St./Wilson St.	AWSC	C	0.82	21.1	C	0.51	12.1	B
45 . 8th St./Ramsey St.	Signal	D	0.48	28.6	C	0.70	38.4	D
46 . 8th St./I-10 Westbound Ramps	TWSC	45s	-	29.3	D	-	19.3	C
47 . 8th St./I-10 Eastbound Ramps	Signal	45s	0.61	22.3	C	0.57	20.9	C
48 . 4th St./Wilson St.	AWSC	C	0.61	12.9	B	0.45	10.5	B
49 . San Geronimo Ave./Wilson St.	AWSC	C	0.62	12.6	B	0.43	10.8	B

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

AWSC = All-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.

Existing (Baseline) plus Project Freeway Segment Levels of Service

Project volumes on study area freeway segments were developed by applying the Project trip distribution patterns at study area interchanges to the Project. Table 4.13-4 summarizes existing without and plus Project (Phase III) a.m. and p.m. peak hour freeway mainline traffic volumes and levels of service for the freeway segments on I-10 and SR-60. The TIA indicates conceptual freeway mainline improvements that could be implemented to address future regional growth on the State's local highway system for years 2022, 2032, 2042, and General Plan buildout (refer to Table 4.13-9 below); however, as indicated in Table 4.13-4, all freeway segments under existing conditions would operate at LOS E or better during the a.m. and p.m. peak hours in both directions with implementation of the Project. As discussed further below, regional improvements, including freeway mainline improvements, are necessary to address existing and projected cumulative traffic levels, and are funded through a variety of local, State and federal sources. Addressing regional transportation system impacts is beyond the scope of this Project or EIR, as such highway improvements are under the jurisdiction of FHWA, Caltrans, SCAG, WRCOG and others, and involve a balance between numerous criteria such as travel modes (single-occupancy vs. HOV), regulations and incentives to reduce VMT or promote carpooling (such as HOV toll facilities), provisions for heavy truck travel, design standards (such as interchange spacing, lane widths, mass transit, and/or mixed-flow lanes), and integration with other regional transportation systems such as air and freight-based goods movement.

PROJECT MITIGATION MEASURES

Overview of Mitigation Measures. The following mitigation measures have been developed to reduce all Project-related impacts to less than significant levels. For each mitigation measure, the improvement is preceded by a parenthetical number representing the TIA intersection study location, and is followed by the local agency with jurisdiction over the improvement location (in CAPS). Where relevant, the mitigation measure notes where the improvement is already funded (see discussion above for detailed discussion). The mitigation measure also notes the potential for right-of-way acquisition and associated potential impacts (refer to following discussion regarding "Potential Impacts of Traffic Mitigation").

As described above, the existing (baseline) plus Project conditions have been analyzed to determine full build out of the Project on the existing conditions. This is based on adding 100% of Project traffic (at buildout) to the existing road network and existing traffic volumes, then developing mitigation to bring the respective location back to pre-Project conditions. Actual Project traffic volumes and related impacts will be much lower, gradually increasing to the buildout levels assumed in this scenario over the 30-year buildout of the Project (refer to Appendix I, *Traffic Impact Assessment*, for a detailed analysis of various interim year scenarios).

City of Banning Improvements. For the Existing plus Project traffic improvements within the City of Banning, the Applicant will be required to construct or fund the improvements on a phased schedule as determined necessary with each Final Tract Map submittal (see Mitigation Measure TRF-1). If not constructed by the City or others, the Applicant shall construct Project-related improvements in the City of Banning noted below, for credit against Project traffic fees (refer to Mitigation Measure TRF-2).

The Applicant's total traffic-related fees are estimated at over \$49 million, based on current City fees, for residential units only, and excluding contributions to General Fund revenue, plan check fees, improvement plan fees, and other City fees and Project funding sources.

City of Beaumont Improvements. As described in the funding discussion above, Project-related impacts in the City of Beaumont are funded through several existing City of Beaumont fee programs. Since the Project's land use and associated traffic generation has not materially changed since 1992, the City of Beaumont's long-range circulation system planning has accounted for City of Banning traffic. In addition, the Project will be paying TUMF fees, which are expressly intended for mitigation of regional traffic impacts, and the Applicant is materially participating with Beaumont in addressing regional traffic issues such as the Highland Springs Avenue/I-10 interchange (see discussion below under "Caltrans Improvements").

Highland Springs Avenue Beaumont/Banning Improvements. Project-related impacts along Highland Springs Avenue, adjacent to the western Project boundary, would be located on the boundary of the City of Banning and the City of Beaumont. Considering that the Applicant, Pardee Homes, is the owner/developer for the Sundance Specific Plan in the City of Beaumont, and based on a long history of successfully working with the Cities of Beaumont and Banning to cooperatively resolve traffic issues, the Applicant shall construct improvements within the City of Beaumont, as identified below, along Highland Springs Avenue from Brookside Avenue to I-10.

County of Riverside Improvements. As described in the funding discussion above, Project-related impacts to County roadways are funded through several existing County fee programs, most notably TUMF. Since the Project's land use and associated traffic generation has not materially changed since 1992, the County's long-range circulation system planning has accounted for traffic that would ultimately be generated by development of the Project site. In addition to TUMF fees, which are expressly intended for mitigation regional traffic impacts, the Project will also be contributing toward funding of County road improvements through General Fund revenue from property tax, sales tax and other Project-related revenue. The Applicant has also been materially participating and funding portions of several regional transportation improvement studies (described under "Caltrans Improvements" below), and will be extending Highland Home Road from its existing terminus just north of Wilson Street northerly through the Project and connecting to the existing terminus of Brookside Avenue. This is a regional road improvement providing important additional north/south and east/west

circulation between Beaumont, Banning, the I-10 corridor, and unincorporated Cherry Valley areas and beyond. The Applicant would incur significant costs for this road improvement, and the improvement would be funded 100% by the Applicant.

Caltrans Improvements. Since the Project's land use and associated traffic generation has not materially changed since 1992, the long-range Caltrans system planning has accounted for City of Banning traffic. In addition, the Project will be paying TUMF fees, which are expressly intended for mitigation regional traffic impacts. The Project will also be contributing toward regional road improvements through property tax, sales tax, vehicle license fees, gas tax, income tax, and other Project-related sources. Project-related revenue from gasoline tax alone is estimated at over \$7 million³ annually at buildout; however, the amount of locally generated gas taxes from future Project residents to be applied to local I-10 improvements cannot be determined or guaranteed. The California interstate system, such as I-10, also receives additional state and federal funding through the federal highway reauthorization bills, special federal authorizations, and state and local bond measures. The Applicant has been materially participating in, and leading, the combined efforts of the Cities of Banning and Beaumont to address regional traffic issues, such as the I-10/Highland Springs Avenue interchange⁴.

Based on the review of the Pass Area Regional Transportation Needs Assessment Report (PARTNAR) prepared by Caltrans (February 2010), a new interchange at Highland Home Road and I-10 was not identified as a future need in the region. Highland Home Road/I-10 interchange is not listed in the need assessment report for the region. Also, the recently completed I-10/Highland Springs Interchange Project Study Report (PSR), submitted for review to Caltrans, shows that existing interchanges on I-10 with some improvements will provide adequate access to regional traffic to and from the freeway in a 2035 condition.

Improvements Funded or Controlled by Others. Notwithstanding the above regarding the adequacy and availability of Project-related funding for Project-related improvements, certain mitigation measures identified below are under the control of jurisdictions other than the City of Banning. In addition, the Project's funding of improvements in these jurisdictions is in some cases not location-specific (while TUMF fees and Beaumont's fee programs are targeted toward specific locations, not all locations are presently identified in TUMF or Beaumont fee programs, and some regional improvements receive funding through General Fund and similar sources, for which the timing and allocation to specific improvements is uncertain). As such, neither the City of Banning nor the Applicant can guarantee that the mitigation measures identified in jurisdictions other than Banning will in fact be constructed in a timely manner. In addition, as noted in the "Potential Impacts Due To Traffic Mitigation" below, certain improvements may

³ Based on 62,000 total daily trips, an assumed average triplength of 10 miles, average fuel economy of 20 mpg, and current state/federal gas taxes of \$0.639/gallon.

⁴ Pardee Homes was recently recognized for its leadership and funding support for the "Highland Springs Avenue Improvements Task Force", at the City of Beaumont's October 5, 2010 City Council meeting. This Task Force will identify interim measures to improve current local roadway conditions.

not proceed due to feasibility issues associated with potential ROW acquisition, cost, and/or structural takes. Therefore, as noted at the end of this section, this represents a “potentially significant impact” even with identified mitigation.

Mitigation Measures

The circulation mitigations identified in Table 4.13-9 are required to mitigate levels of service for study intersections to pre-Project conditions or better to meet current LOS criteria (*refer to discussion below regarding funding and phasing of these improvements, and note that many of these improvements are already included in local or regional improvement programs*):

TRF-1: If not constructed by the City or others, the Applicant shall construct road improvements identified in Table 4.13-9, *Summary of Future Improvements* (“Existing plus Project” improvements in the City of Banning only). These improvements include portions on Highland Springs Avenue in the City of Beaumont, between I-10 and Brookfield, but exclude locations that are deemed by the affected jurisdiction(s) to be infeasible due to impacts of ROW acquisition. If constructed by the Applicant, the cost of these improvements shall be credited against applicable City fees, and/or shall be eligible for reimbursement agreements with the City and/or third parties. The Improvements listed in Table 4.13-9 shall be consistent with the General Plan Circulation Element.

TRF-2: As part of each Final Tract Map, or appropriate group of maps, the Applicant shall prepare a TIA Validation Report (TVR) based on the criteria provided herein for review and approval by the City Engineer. Final Tract Map approvals resulting in less than 500 p.m. peak hour trips (Exempt Maps) shall not require a TVR, unless the cumulative total of prior approved Exempt Maps exceeds 1,000 p.m. peak hour trips since the last TVR.

The TVR shall identify which of the Existing plus Project improvements identified in Table 4.13-9 are required to be constructed for the respective Final Tract Map, to ensure adequate emergency access and satisfactory levels of service. Improvements identified in an approved TVR shall be conditions of Final Tract Map approval. To the extent that any of the improvements mentioned above are included in a fee program, the cost for those improvements, if constructed by the Applicant, will be eligible for fee credits.

The ongoing traffic impact assessment program will be based on the p.m. peak-hour trip threshold. The Final Tract Maps’ total number of p.m. peak hour trips will be established based on the trip generation listed in Table 4.13-7, *Project Trip Generation*. If a portion of commercial development and some residential development is included in the Final Tract Map, the total number of trips

generated by each use (commercial and residential) will be calculated for the p.m. peak hour and compared to a predefined threshold.

Recognizing the variety of land use options, overlays and permitted or conditionally permitted uses, the TVR will also be used to verify , as the Project builds out, that the Project's total peak hour trips are consistent with the assumptions in the Project TIA.

Impact 4.13-1: Conflict with an Applicable Plan, Ordinance, or Policy

Threshold: *Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

Determination: Potentially Significant and Unavoidable Impact with Mitigation Incorporated (due to uncertainty of mitigation feasibility at Highland Springs/Wilson, and lack of control over mitigation implementation in jurisdictions other than Banning, as noted in the text).

Refer to the above discussion regarding the Project's effects upon the local circulation system.

City of Banning General Plan Policy Analysis

Goal: A safe and efficient transportation system.

Policy 1: The City's Recommended General Plan Street System shall be strictly implemented.

Consistent: The Project proposes a circulation system that is described in Section 3, *Project Description*. Any roadways constructed within the Project would need to comply with applicable City and County design standards and regulations as set forth in the Specific Plan. The Applicant is requesting consideration of various special provisions as is typical with the Specific Plan process. If approved by the City, the Specific Plan provisions would supersede the respective General Plan maps for the Project site. These special provisions include consideration of private streets within the Specific Plan, potential gated communities, and a modified cross-section for portions of Wilson Street and Highland Home Road to better reflect site-specific conditions. These are addressed in detail within the Specific Plan, Section 3, *Circulation*.

Table 4.13-9
Summary of Future Improvements

Intersection	Jurisdiction	Existing Plus Project (Project Completion)	Existing Plus Project (Project Completion)			General Plan Build-Out Plus Project	General Plan Build-Out		
			Funded through TUMF Program	Funded through Local Fee Program	Project Funded		Funded through TUMF Program	Funded through Local Fee Program	New Funding
1 . I-10 Eastbound Ramps/San Timeteo Canyon Dr.	Caltrans	Signalize.		Signalize		Signalize, 2 SBL, 3 EBT, WBL, 2 WBT, WBR, Convert SBR - Free SBR	Signalize, 2 SBL, 3 EBT, WBL, 2 WBT, WBR, Convert SBR - Free SBR		
2 . I-10 Westbound Ramps/Oak Valley Pkwy.	Caltrans	Signalize.		Signalize		Signalize, Convert NBR to free NBR, 2 EBT, EBR, 2 WBT	Signalize, Convert NBR to free NBR, 2 EBT, EBR, 2 WBT		
3 . Elm Ave./Oak Valley Pkwy.-14th St.	Beaumont	Signalize.		Signalize		Signalize, NBL, SBL, SBR, EBL, EBT, EBR, WBT		Signalize	NBL, SBL, SBR, EBL, EBT, EBR, WBT
4 . Beaumont Ave./Oak Valley Pkwy.-14th St.	Beaumont					Signalize, NBL		Signalize	NBL
5 . Beaumont Ave./8th St.	Beaumont					NBL	NBL		
6 . Beaumont Ave./I-10 Westbound Ramps	Caltrans					EBL, SBL	EBL, SBL		
7 . Beaumont Ave./I-10 Eastbound Ramps	Caltrans					EB & WB PERM-PROT, NBT, SBT, EBT, WBT, WBR with overlap	EB & WB PERM-PROT, NBT, SBT, EBT, WBT, WBR with overlap		
8 . Beaumont Ave./1st St.	Beaumont					Signalize, NBL, NBR, SBL, SBR, 2 EBL, WBL	Signalize, NBL, NBR, SBL, SBR, 2 EBL, WBL		
9 . Beaumont Ave./Westward Ave.	Beaumont					Signalize, SBL	SBL	Signalize	
10 . Lamb Canyon Rd./California Ave.	Riverside County					Signalize, EBT, WBT, Re-stripe EB, WB, & NB approaches to 1 left-turn and a through right lane	EBT, WBT, Re-stripe EB, WB, & NB approaches to 1 left-turn and a through right lane		
11 . Palm Ave./Oak Valley Pkwy.-14th St.	Beaumont	Signalize.		Signalize		Signalize, WBL		Signalize	WBL
12 . Palm Ave./8th St.	Beaumont	(EBT, WBT) Stripe	(EBT, WBT) Stripe			Signalize, (EBT, WBT) Stripe	(EBT, WBT) Stripe	Signalize	
13 . Pennsylvania Ave./Oak Valley Pkwy.-14th St.	Beaumont	WBL, WBR			WBL, WBR. *	Signalize, NBR, EBL, WBL, WBR		Signalize	NBR, EBL, WBL, WBR
14 . Pennsylvania Ave./8th St.	Beaumont					Signalize, NBR, SBL, NBT	Signalize, NBR, SBL, NBT		
15 . Pennsylvania Ave./I-10 Westbound Ramp	Caltrans	Signalize.		Signalize		Signalize, NBT, EBR	Signalize, NBT, EBR		
16 . Pennsylvania Ave/I-10 Eastbound Ramp	Caltrans					TWLT	TWLT		
17 . Pennsylvania Ave./3rd St.	Beaumont					Signalize, EBT		Signalize	EBT
18 . Cherry Ave./Oak Valley Pkwy.-14th St.	Beaumont	Signalize.		Signalize		Signalize, NBT, NBR, 2 SBL, SBT, EBL, EBT, EBR, 2 WBL, WBT, WBR	NBT, SBT		Signalize, NBR, 2 SBL, EBL, EBT, EBR, 2 WBL, WBT, WBR
19 . Starlight Ave/ Oak Valley Pkwy.-14th St.	Beaumont				Convert TWSC to AWSC, WBR.	Signalize			
20 . Highland Springs Ave./Brookside Ave.	Riverside County	Convert TWSC to AWSC, WBR.			Convert TWSC to AWSC, WBR.	Signalize			
21 . Highland Springs Ave./16th St.-Cougar Way	Beaumont/Banning					Signalize, NBR		Signalize	Signalize
22 . Highland Springs Ave./F St.	Beaumont/Banning	Signalize.		Signalize				Signalize	NBR
23 . Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Beaumont/Banning	NBL, NBR, WBL	NBL, NBR, WBL			NBL, NBT, SBT	NBL, NBT, SBT		
24 . Highland Springs Ave./Starlight Ave.-A St.	Beaumont/Banning	Signalize, NBT, SBT, SBL, WBL	NBT, SBT, SBL	Signalize	WBL	Signalize, NBL, NBT, NBR with overlap, SBL, SBT, SBR, EBL, EBR with overlap, WBL	NBT, SBL, SBT	Signalize	NBL, NBR with overlap, SBR, EBL, EBR with overlap, WBL
25 . Highland Springs Ave./8th St.-Wilson St.	Beaumont/Banning	NBT, WBL	NBT, WBL			2 NBT, SBL, SBR, EBR, WBL, Convert the WBR to WBR with overlap	2 NBT, SBL, SBR, EBR, WBL, Convert the WBR to WBR with overlap		
26 . Highland Springs Ave./6th St.-Ramsey St.	Beaumont/Banning	Optimize Traffic Signal		Optimize Traffic Signal		Optimize Traffic Signal, NBL, NBT, SBL, SBT, WBL	NBL, NBT, SBL, SBT, WBL	Optimize Traffic Signal	
27 . Highland Springs Ave./I-10 Westbound Ramps	Caltrans	Optimize Traffic Signal	Optimize Traffic Signal			Optimize Traffic Signal, NBL, NBT, WBL, WBR	Optimize Traffic Signal, NBL, NBT, WBL, WBR		
28 . Highland Springs Ave./I-10 Eastbound Ramps	Caltrans	Optimize Traffic Signal, EBL	Optimize Traffic Signal, EBL			Optimize Traffic Signal, NBT, SBL, EBL, EBR	Optimize Traffic Signal, NBT, SBL, EBL, EBR		
29 . Highland Springs Ave./1st St.-Sun Lakes Blvd.	Beaumont/Banning					NBT, NBR with overlap, SBL, EBR with overlap, 2 WBL, Convert WBT to WBT	NBT, NBR with overlap, SBL, EBR with overlap, 2 WBL, Convert WBT to WBT		
30 . Highland Springs Ave./Potrero Blvd.	Beaumont/Banning					Signalize		Signalize	
31 . C St.-Apex Ave./Wilson St.	Banning	Signalize, EBL	EBL	Signalize	Signalize	Signalize, EBL, EBT, WBT	EBL, EBT, WBT		Signalize
32 . Highland Home Rd./Northern Loop	Banning	Signalize.			Signalize	Signalize, NBL, NBT, SBT, SBR			Signalize, NBL, NBT, SBT, SBR
33 . Highland Home Rd./Beaumont Rd.-G St	Banning					Signalize, NBT, 2 SBL, WBL, NBR			Signalize, NBT, 2 SBL, WBL, NBR
34 . Highland Home Rd./F St.	Banning					Signalize, NBL			Signalize, NBL
35 . Highland Home Rd./D St.	Banning	Signalize.			Signalize	Signalize, NBL			Signalize, NBL
36 . Highland Home Rd./Wilson St.	Banning	Signalize, SBL		Signalize	SBL	Signalize, NBT, 2 SBL, SBT, WBR with overlap		Signalize	NBT, 2 SBL, SBT, WBR with overlap
37 . Highland Home Rd./Ramsey St.	Banning	Signalize.		Signalize		Signalize, WBR with overlap		Signalize	WBR with overlap
38 . Sunset Ave./Wilson St.	Banning	Signalize.		Signalize		Signalize, 2 NBL, NBT, SBL, SBT, SBR with overlap, 2 WBL, WBT, WBR, 2 EBL, EBT, EBR	WBL, WBT, EBL, EBT	Signalize	2 NBL, NBT, SBL, SBT, SBR with overlap, WBL, WBR, EBL, EBR
39 . Sunset Ave./Ramsey St.	Banning					NBL, NBR, SBL, SBR, EBR with overlap, WBL			NBL, NBR, SBL, SBR, EBR with overlap, WBL
40 . Sunset Ave./I-10 Westbound Ramps	Caltrans					Signalize, Free SBR	Signalize, Free SBR		
41 . Sunset Ave/I-10 Eastbound Ramps	Caltrans	Convert SBT to SBL, EBL	Convert SBT to SBL, EBL			Signalize, SBL, 2 EBL	Signalize, SBL, 2 EBL		
42 . Sunrise Ave./Wilson St.	Banning	Convert TWSC to AWSC			Convert TWSC to AWSC	Signalize, EBT, Convert WBR to WBTR	EBT, Convert WBR to WBTR		Signalize
43 . 16th St./Wilson St.	Banning					Signalize			Signalize
44 . 8th St./Wilson St.	Banning					Signalize, NBL, SBL, WBR	NBL, SBL, WBR	Signalize	
45 . 8th St./Ramsey St.	Banning					NBL, NBR, EBT, WBL	NBL, NBR, EBT, WBL		
46 . 8th St/I-10 Westbound Ramps	Caltrans					Signalize, 2 NBL, NBT, SBT			Signalize, 2 NBL, NBT, SBT
47 . 8th St/I-10 Eastbound Ramps	Caltrans	Signalize.			Signalize	Signalize, NBT, SBT, SBL, EBL, EBR			Signalize, NBT, SBT, SBL, EBL, EBR
48 . 4th St./Wilson St.	Banning					Signalize			Signalize
49 . San Geronio Ave./Wilson St.	Banning					Signalize, EBT, EBL, WBTL		Signalize	EBT, EBL, WBTL

Notes:
* With the exception of Pennsylvania Avenue/8th Street, Pardee Homes will not provide project funding at City of Beaumont intersections.
NB, SB, EB, WB: Northbound, Southbound, Eastbound, Westbound
L, T, R: Left, Through, Right
Within the City of Beaumont
Shared by both City of Beaumont and Banning
Within the City of Banning
Improvement funded by Beaumont Transportation Fee/TUMF
Improvement funded by Banning Signal Fee
Improvement funded by Beaumont Signal Fee

Exhibit 3.0-3, *Land Use Plan* in Section 3.0, *Project Description*, illustrates the internal backbone street network for the proposed Butterfield Specific Plan Project. The street network that comprises these major streets has seven internal intersections within the Project site. Both a.m. and p.m. peak hour intersection volumes that were obtained from the model were used to analyze the operating conditions of these seven internal intersections. Each intersection was analyzed as a stop-controlled intersection at the minor street approach only. Table 4.13-10 shows that all the intersections operate acceptably at LOS C or better in a.m. and p.m. peak hour. A signal warrant analysis was conducted for the seven intersections to determine if a signal is warranted at any of the intersections where a signal has been recommended as mitigation. As shown in Appendix I, *Traffic Impact Analysis*, Appendix G, all intersections where a signal has been recommended as mitigation warrant signals. Detailed HCM worksheets for the analyses are also included in Appendix I, *Traffic Impact Analysis* (Appendix H).

Table 4.13-10
Internal Intersections Level of Service Summary

Intersection		A.M. Peak Hour		P.M. Peak Hour	
		Delay (seconds)	LOS	Delay (seconds)	LOS
1	F Street/Northern Loop	12.3	B	13.7	B
2	E Street/F Street	9.2	A	10.1	B
3	E Street/Southern Loop	9.1	A	10.9	B
4	D Street/Southern Loop	10.6	B	12.1	B
5	C Street/Southern Loop	9.1	A	9.6	A
6	A Street/Southern Loop	11.8	B	20.4	C
7	B Street/Southern Loop	11.3	B	15.5	C

Policy 2: Local streets shall be scaled to encourage neighborhood interaction, pedestrian safety and reduced speeds.

Consistent: The proposed Project includes local streets that provide access from arterial highways to proposed residential areas, parks, schools, commercial sites, golf course, and other recreational areas. The Project roadways that are modified collector classification or higher are designed to provide on-street bicycle lanes, minimum 6 feet wide, providing connections to regional and local facilities, and residential areas within the Project. Trails/pathways and sidewalks providing pedestrian safety from vehicles will also be provided along roadways within the Project.

Policy 5: Consider amendments to the Highland Home/Highland Springs/18th Street/Brookside street configurations based on public safety, design feasibility and area needs.

Consistent: Proposed Project improvements for Highland Springs Avenue, from Wilson Street to Brookside Avenue, will accommodate an ultimate minimum right-of-way of approximately 102 feet, which will provide a raised median and two travel lanes in each direction, an outside emergency and bike lane on each side, as well as parkway improvements. Highland Home Road, from Wilson Street to proposed "F" Street, has existing homes and the approved Tract No. 30906 (Fiesta Development) on the east side of the proposed and existing roadway. However, this portion of the road is planned to provide a combined 126 foot right-of-way, a 16 foot raised median, a 14 foot lane on each side adjacent to the median, 12 foot outside lanes, and a 6 foot wide emergency or bike lane on each side. A parkway containing tall shrubs or a wall will separate the proposed Highland Home Road roadway and the existing homes and proposed 20-foot wide frontage road.

Highland Home Road from just south of the proposed "D" Street to "F" Street, is proposed to provide 104 feet of right-of-way, which includes a 16 feet raised median, two travel lanes on each side, and a 6 feet wide emergency or bike lane per side.

Highland Home Road, from proposed "F" Street to Brookside Avenue is proposed to provide 100 feet of right-of-way, including a median, two through lanes on each side and a emergency/parking lane or minimum 6 feet bicycle lanes on each side.

Policy 6: The City shall maintain peak hour Level of Service C or better on all local intersections, except those on Ramsey street and at I-10 interchanges, where Level of Service D or better shall be maintained.

Consistent: Appendix I, *Traffic Impact Analysis*, presents transportation improvements and mitigations that would provide acceptable levels of service at study area intersections in accordance with Policy 6. All study area intersections are mitigated to pre-Project conditions. Refer to the discussion below regarding "Potential Impacts Due To Traffic Mitigation", regarding potential reduction in impacts should the City of Banning accept an LOS D criteria on other urban arterials such as Highland Springs Avenue. The TIA provides a detailed discussion regarding off-site traffic improvements that would not be necessary should the City elect to adopt an LOS D criteria on specified urban streets.

Policy 7: New development proposals shall pay their fair share for the improvement of streets within and surrounding their projects on which they have an impact, including roadways, bridges, grade separations and traffic signals.

Consistent: As described in greater detail in the Funding discussion in Section 4.13-5, the Project will pay applicable City of Banning traffic fees, regional TUMF fees, and will implement identified improvements within the Specific Plan and along Project frontages.

Policy 10: Sidewalks shall be provided on all roadways 66 feet wide or wider. In Rural Residential land use designation, pathways shall be provided.

Policy 11: Sidewalks or other pedestrian walkways shall be required on all streets within all new subdivisions.

Consistent: All Project roadways 60 feet wide or wider within the Project will have sidewalks provided for safe pedestrian circulation. The Project proposes various sidewalks and other pedestrian walkways throughout the site. Refer to Section 3, *Project Description*.

Impact 4.13-2: Conflict with an Applicable Congestion Management Program

Threshold: *Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

Determination: Potentially Significant and Unavoidable Impact with Mitigation Incorporated (although the TIA identifies mitigation to achieve acceptable levels of service, CMP facilities are outside the jurisdiction of the City of Banning, and the recommended improvements may not be implemented due to feasibility, prioritization or other factors).

The Riverside County CMP has a standard of LOS E or better for CMP facilities. CMP facilities affected by the Project include SR-60, I-10, SR-79 (Beaumont Avenue) south of I-10, and SR-243 south of I-10. As discussed in Appendix I, Traffic Impact Assessment, Section 7, the TIA identifies potential freeway ramp improvements and freeway mainline improvements, as well as recommended mitigation measures for SR-79 and SR-243. Freeway mainline improvements are described further below in Cumulative Impacts. The EIR identifies mitigation to achieve acceptable levels of service for CMP facilities (discussed above). However, as these improvement locations are outside the control of the City of Banning and the Applicant, timely implementation of the mitigation measures is uncertain, and therefore these issues must be considered a “potentially unavoidable significant impact”.

Impact 4.13-3: Result in a Change in Air Traffic Patterns or Cause Safety Risks

Threshold: *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

Determination: No Impact

The proposed Project site is located approximately 4 miles northwest of the Banning Municipal Airport. The proposed Project will not change air traffic patterns because there are no

structures proposed to be constructed within the Project site that would be tall enough to encroach into or physically affect existing air traffic patterns. Also refer to Section 7.0, *Effects Found Not To Be Significant*.

Impact 4.13-4: Increase Hazards

Threshold: *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Determination: Less than Significant

All Project roadways would be designed and built in compliance with City of Banning, County of Riverside, CALTRANS and other relevant regulating agency development standards, requirements, and regulations. The Project site will not be subject to active “farming” involving frequent or intense use of agricultural equipment. The Applicant intends to continue allowing periodic grazing activity on the site as a Project benefit, and such uses have historically not created any significant safety hazards, nor are they anticipated to in the future. Also refer to Section 7.0, *Effects Found Not To Be Significant*.

Impact 4.13-5: Result in Inadequate Emergency Access

Threshold: *Would the project result in inadequate emergency access?*

Determination: No Impact

The Project proposes several ingress/egress points into the Butterfield Specific Plan Project area, which provide options for alternate emergency routes. City road design requirements provide adequate space for the passage of emergency vehicles based on the road classification width. The Project has been modified based on initial discussions with City staff to provide additional emergency access points for PAs 5 and 11. The Project creates additional regional access by extending and widening existing Highland Home Road to connect to existing Brookside Avenue.

Impact 4.13-6: Conflict with Adopted Policies, Plans, or Programs or Decrease Safety of Alternative Travel Facilities

Threshold: *Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

Determination: Less than Significant

Public transit in the City of Banning is currently provided by the City's Transit Fixed Route Division, which provides bus services and Dial-A-Ride service. Riverside Transit Agency (RTA) coordinates transit services with the City of Banning. The Project would not decrease transit performance because the Project is required to consult with the City of Banning and Riverside County Transit authorities to expand scheduled bus service, to implement long-term public transportation projects, and to develop vanpools and subscription bus service where appropriate. The proposed Project includes a variety of alternative transportation modes such as a pedestrian trail system, accommodation for Neighborhood Electric Vehicles (NEV), and bicycle lanes. These modes of transportation are consistent with the City of Banning General Plan Circulation Element because the City's General Plan and various Policies support planning that allows and enhances access to commercial services and places of employment and recreation without the essential use of motorized vehicles. The proposed addition of pedestrian, bicycle and NEV facilities that are connected and not discontinuous, like various existing facilities within the City, will provide safe paths for pedestrians, bicycles and NEVs to travel throughout the Specific Plan area. Refer to the Butterfield Specific Plan Section 3.2, *Circulation Plan*, for more detail on the proposed alternative transportation facilities. Additional non-vehicular transportation measures are discussed in Section 4.5, *Climate Change*. The proposed Project would not conflict with the performance of transit systems within the area or with adopted plans or programs related to pedestrian, bicycle, and transit facilities. Impacts would be less than significant in this regard.

4.13.5 PROPOSED INTERSECTION IMPROVEMENTS – FUNDING PROGRAMS/SOURCES

Infrastructure improvements are needed to accommodate the projected population growth in the Pass Area region. As a part of the infrastructure improvements, several roadway segments, interchanges and intersections will have to be improved to accommodate the corresponding growth in traffic in the future. Several funding mechanisms/programs at both the regional and local level are developed by jurisdictions to address the long term transportation infrastructure needs for the region. Typically, these programs collect a mitigation fee for listed set of improvements along roadway segments, interchanges, and intersections. The following are the fee programs that cover the roadway segments, interchanges and intersections in the study area for the proposed Project:

- The Western Riverside Council of Governments (WRCOG), Transportation Uniform Mitigation Fee
- City of Beaumont Road and Bridge Fee
- City of Beaumont Traffic Signal, Railroad Crossing and Fire Station Impact Mitigation Fee
- City of Banning Development Impact Fee

The City of Banning's General Plan (GP) and supporting Environmental Impact Report (EIR) contains City commitments (i.e., mitigation measures) to assuring that acceptable levels of service are maintained and currently accounts for the development of the existing Deutsch SP, which is consistent with the density and intensity of land uses for the proposed project. Policy 3 and Program 3A of the GP Circulation Element provide that the City Public Works Department shall establish and maintain a 5-year Capital Improvement Program (CIP) and update it annually. Program 4B provides that the City will aggressively pursue the addition of Banning projects to the TUMF program. Policy 6 and Program 6B provide that the City will maintain peak hour LOS C or better on all local intersections, except those on Ramsey Street and at I-10 interchanges, where LOS D or better shall be maintained and that the City will periodically review current traffic volumes and the actual pattern of development to coordinate, program and, as necessary, revise road improvements. Policy 7 provides that new development proposals shall pay their fair share for the improvement of streets within and surrounding their projects on which they have an impact, including roadways, bridges, grade separations, and traffic signals.

WRCOG Transportation Uniform Mitigation Fee (TUMF)⁵:

The underlying purpose of the TUMF program is "the need to establish a comprehensive funding source to mitigate the cumulative regional transportation impacts of new development on regional arterial highways." As new development occurs in Western Riverside County, the cumulative transportation impacts of this new development is reflected in increased demand for transportation infrastructure leading to decreased levels of service, increased delay and increased congestion on regional transportation facilities, and an overall decline in regional mobility. Therefore, the need to invest in additional transportation infrastructure to meet the increased travel demand and to sustain pre-development traffic conditions to "keep traffic flowing" represents the fundamental premise of the TUMF program.

Under the TUMF program a backbone roadway network and freeway interchanges that connect to the backbone roadway network are identified. Within the City of Banning the following roadway segments are included in the TUMF program and are proposed to be widened;

- 8th Street between Wilson Street and I-10 – widened to a 2 lane facility
- The Highland Springs Boulevard and Sunset Avenue interchanges with I-10
- The Sunset Avenue interchanges with I-0
- Highland Springs between Cherry Valley Boulevard and Wilson Street – widened to a 4 lane facility

⁵ Source: Transportation Uniform Mitigation Fee 10-Year Strategic Plan and Transportation Improvement Program Development Guidelines (Updated November 15, 2006 and Amended June 05, 2007) and WRCOG TUMF Nexus Study – 2009 Program Update.

- Highland Springs between Wilson Street and Sun Lakes Boulevard – widened to a 6 lane facility
- Ramsey Street between Highland Springs Avenue and 8th Street – widened to a 4 lane facility
- Sun Lakes Boulevard between Highland Springs Avenue and Highland Home Road – widened to a 4 lane facility
- Sun Lakes Boulevard between Highland Home Road and Sunset Avenue – widened to a 2 lane facility
- Wilson Street between Highland Springs Avenue and 8th Street – widened to a 4 lane facility

It should be noted that a typical roadway standard for TUMF network improvements assumes the following standard design characteristics that are generally consistent with the minimum statutory requirements for roadway capacity expansion in the region:

- 12 foot wide asphalt concrete roadway lanes;
- 14 foot painted median (or center left turn lane);
- 4 foot wide paved shoulder/bike lanes (on the roadway);
- Curb and gutter with accompanying roadway storm water drainage;
- 6 foot wide sidewalks

The unit cost values for the TUMF were developed for various eligible improvement types that all provide additional capacity needed to mitigate the cumulative regional traffic impacts on the regional system of highways and arterials. Eligible improvement types include:

- Construction of additional network roadway lanes;
- Construction of new network roadway segments;
- Expansion of existing network bridge structures;
- Construction of new network bridge structures;
- Expansion of existing network interchanges with freeways;
- Construction of new network interchanges with freeways;
- Grade separation of existing network at-grade railroad crossings;
- Expansion of existing network-to-network intersections.

The roadway improvements in excess of the typical roadway standard (as described above) are not eligible for TUMF funding and will be the responsibility of the local developer or funding

agency. Where improvements in excess of the typical roadway standard are to be implemented, the equivalent value for implementing the typical roadway standard will be eligible for funding as part of the TUMF program.

Several intersections along the TUMF network roadway are included in the Butterfield Specific Plan Traffic Impact Analysis, as noted in applicable mitigation measures below.

City of Beaumont Road and Bridge Fee⁶:

The transportation facility fee known as the Beaumont Road and Bridge Fee was developed to fund the design, construction and upgrade of certain transportation facilities necessary to serve future development in the City. The facilities to be funded by the transportation facility fee are listed below:

- SR-60/Potrero Boulevard Interchange
- I-10/Oak Valley Parkway Interchange
- I-10/SR-79 Interchange
- I-10/Highland Springs Avenue Interchange
- I-10/Pennsylvania Avenue Interchange
- Potrero Boulevard between Oak Valley Parkway and First Street
- Beaumont Avenue (SR-79) between 6th Street and Westward Avenue
- Pennsylvania Avenue between 6th Street and First Street
- Highland Springs Avenue between 6th Street and First Street

The ultimate build out of the transportation facilities listed above are planned to be consistent with the Circulation Element of the City's General Plan. All of the I-10 interchanges listed above were included in the Butterfield Specific Plan Traffic Impact Analysis.

City of Beaumont Traffic Signal, Railroad Crossing and Fire Station Impact Mitigation Fee⁷

The ordinance for establishing the traffic signal, railroad crossing and fire station impact mitigation fee included the establishment of a separate fee account for Traffic Signal Mitigation and the fees collected in this account would be expended solely for the purchase and installation of traffic signals at intersections throughout the City. The ordinance does not list the

⁶ Resolution of the City of Beaumont Amending the Beaumont Road and Bridge Area Benefit District Transportation Facility Fee (Resolution No. 2008-44) – November 2008.

⁷ An Ordinance of the City Council of the City of Beaumont Establishing Traffic Signal and Railroad Crossing Mitigation Fees, September 1999 (Ordinance no. 794).

intersections but has included a total of 65 locations within the City that will require signalization in the future. It is reasonable to assume that all major intersections (collector to collector) within the City would be included in the Traffic Signal Mitigation Fee.

City of Banning Development Impact Fee⁸

The City of Banning has developed individual impact fees for five infrastructure categories which are combined together under one fee known as the Development Impact Fee. The five infrastructure categories are as follows:

- Traffic/Control
- Fire/Emergency Services
- Police
- General Government
- Parks and Recreation

The Traffic/Control Development Fees were derived using a plan-based methodology, which incorporates planned capacity and signalization improvements for 2005 to 2025 time-period. The following intersection signals are included in the traffic control portion of the development fees:

- Lincoln Street/San Gorgonio Avenue
- Lincoln Street/8th Street
- Lincoln Street/Hargrave Street
- Lincoln Street/22nd Street
- Highland Home Road/Westward Avenue
- Highland Home Road/Ramsey Street
- Highland Home Road/Wilson Street
- Highland Home Road/Sun Lakes Boulevard
- Highland Springs Avenue/Wilson Street
- Westward Avenue/San Gorgonio Avenue
- Westward Avenue/Sunset Avenue
- Westward Avenue/22nd Street
- Westward Avenue/8th Street

⁸ City of Banning Development Impact Fee, June 2006.

- Sunset Avenue/Lincoln Street
- Sunset Avenue/Wilson Street
- San Geronio Avenue/Wilson Street
- Ramsey Street/16th Street
- 8th Street/Wilson Street
- Jacinto View Road/Highland Home Road
- Hargrave Street/Westward Avenue
- Highland Springs Avenue/Sun Lakes Boulevard
- Wilson Street/Mountain Avenue
- Wilson Street/Oregon Trail

Of the intersections listed above, eight intersections are included in the Butterfield Specific Plan Traffic Impact Analysis.

4.13.6 POTENTIAL IMPACTS DUE TO TRAFFIC MITIGATION

Additional right-of-way necessary to improve various intersection traffic conditions could result in impacts to land use or biological resources. The following is a list of intersections discussed in the mitigation section of this analysis that would require or may require additional right-of-way for improvements. This discussion is based on a preliminary assessment of potential improvement geometrics, potential additional ROW, and potential impacts related to the additional ROW acquisition. The applicable jurisdiction(s) will conduct preliminary design studies, prepare final design plans, and determine whether or not additional CEQA review is required for each individual improvement. The intent of this discussion is to minimize or avoid the need for future CEQA documents for Project-related transportation improvements, by identifying the offsite improvements, discussing the anticipated nature of potential impacts, and by developing site-specific improvement guidelines as reflected in TRF-3.

Project Improvements with no anticipated significant impacts

The following improvements are anticipated to not require any additional right-of-way, such as signals or restriping (location numbers refer to Study Area locations as shown in Exhibit 4.13-3, *Study Area Intersections*): 1, 2, 3, 11, 13, 14, 15, 18, 22, 26, 27, 31, 32, 35, 37, 38, 42, 47

Project improvements with relatively minor right-of-way requirements

20 – Highland Springs/Brookside – approximately 12 feet of ROW for WBR, which would affect disturbed land adjacent to the golf course.

23 – Highland Springs/Oak Valley – substantial ROW required, although this improvement is within the Project, which can accommodate the necessary ROW. Improvements may require utility relocations including existing power poles along the west side of Highland Springs.

24 – Highland Springs/Starlight – similar to #23 above, these improvements are within the Sundance and Butterfield Specific Plans, although drainage channel and utility modifications or relocations may be necessary. Refer to mitigation measure TRF-3 regarding special design considerations for offsite improvements.

28 – Highland Springs/I-10 EB ramps – EB left turn lane can be accommodated within a disturbed area between I-10 and the existing eastbound off-ramp.

36 – Highland Home/Wilson – southbound left turn lane can be accommodated within Project development area, although modifications to existing Pershing Channel will be necessary. This impact is addressed as part of the overall Project impacts throughout the EIR, and the channel modifications are accounted for in the biological resource and jurisdictional delineation analyses.

41 – Sunset/I-10 EB Ramp – the eastbound left turn can be accommodated within a disturbed area between the existing eastbound off-ramp and the I-10. This area appears to be a partially landscaped freeway slope that contains scrub bushes and a few non-native trees. Refer to mitigation measure TRF-3 for special design considerations.

Project improvements with potentially significant impacts and/or feasibility concerns

25 – Highland Springs/Wilson – Approximately 8-10 feet of ROW may be required from the existing hospital parking area. It is anticipated these improvements can occur with limited effect on hospital parking, but would result in loss of landscaped area along Highland Springs south of Wilson, as well as relocating the existing bus stop, utilities and signage. Recommended improvement for westbound Wilson can occur within the Project site.

Mitigation Measure for Off-Site Traffic Improvements in the City of Banning

TRF-3 Improvement plans shall be prepared for each Project-related offsite traffic improvement and approved by the City Engineer. Improvement plans shall incorporate the following considerations, as applicable:

- a) Obtain encroachment permit(s) from the applicable jurisdiction(s) for offsite improvements;
- b) Through creative design techniques, where determined feasible and consistent with City policy, modify roadway geometry to reduce potential impacts to

existing developed areas (such as reduced lane widths, reduced or eliminated medians, reduced turn lane transition zones, and/or shifting intersection approaches to widen intersection quadrants where associated impacts would be reduced);

- c) Maintain access for existing residences and businesses at all times;
- d) Replace landscaped areas within the affected parcel and along the parcel frontage wherever practical;
- e) Assist the affected property owner in restriping affected parking areas and/or reconfiguring affected driveways to avoid or offset improvement-related impacts;
- f) Follow applicable Project EIR mitigation measures related to biological resources (i.e., BIO-1 through BIO-5), with respect to minimizing loss of native vegetation, replacement or relocation of mature trees, use of native and/or drought tolerant vegetation in new landscaped areas, and ensuring consistency with applicable MSHCP and regulatory agency permitting provisions; and
- g) Compensate the affected property owner based on fair market valuation of the acquired ROW in accordance with applicable local, State and federal regulations.

4.13.7 CUMULATIVE IMPACTS

Determination: Potentially Significant and Unavoidable Impact with Mitigation Incorporated

In addition to Existing plus Project traffic impacts described above, the TIA provides a detailed analysis of various interim traffic conditions between Year 2012 and General Plan buildout. This cumulative analysis below is based on the General Plan buildout scenario. Refer to Appendix I, TIA for discussion regarding additional interim scenarios noted below.

General Plan Buildout Assumptions – Growth Rate (Cumulative Projects)

The adopted General Plan Circulation Element for the City does not define a build-out year for the General Plan land uses and, in order to develop the proportional growth between existing condition and General Plan Build-out condition, a General Plan Build-out year was estimated for the traffic impact analysis. Due to the regional nature of the Project Study area, the TIA utilizes the regional growth factor represented in the Southern California Associated Governments' (SCAG) Regional Transportation Plan (RTP 2008), which is a housing growth rate of 2.57 percent.

The SCAG RTP 2008 was used to estimate the projected compounded average annual growth rate between the base year (2003) and future year (2035) for the Banning region for the purposes of estimating a potential Banning General Plan buildout horizon year. As a regional

Metropolitan Planning Organization (MPO), SCAG develops forecast for the region for future conditions based on existing socio-economic data which includes housing. This socio-economic data is also used to develop traffic forecasts for the region for future conditions. Also, the forecasts developed by SCAG are used by other local agencies (Riverside County) and Caltrans for planning purposes. Hence, the use of growth rate based on SCAG RTP is most relevant and accurate not only for this Project, but any project in the region.

The SCAG compounded average annual growth rate of 2.57 percent between 2003 and 2035 was calculated using growth within SCAG zones that cover the region in and around Banning that includes the area within the City limits, the sphere of influence, and planning areas. The growth rate (2.57 percent) was applied to the difference between total projected buildout units (buildout conditions) and the total existing residential units within the region to determine the General Plan buildout year.

This growth rate was applied to existing City housing stock as of 2003 to determine a General Plan buildout year, resulting in a Year 2045 General Plan buildout. The total development reflected in General Plan buildout was then amortized over the 42-year period from 2003 to 2045 to develop interim traffic condition analyses. Section 4.4 of the TIA provides a detailed discussion of this methodology. The actual timing and extent of future development will depend on numerous factors including market conditions, broader economic cycles, and trends in housing products. In addition, the major planned developments in the Project Area (summarized in Section 4.0 of this EIR and shown in Exhibit 2-1, including Banning Bench, Black Bench, Five Bridges, Four Seasons, Sun Lakes, Sundance, and Lariat) are reflected in the respective General Plans, and their associated traffic impacts are therefore accounted in the General Plan buildout analysis.

General Plan Buildout Roadway Network

The City of Banning General Plan Circulation Element (Updated June 2005), the City of Beaumont General Plan Circulation Element (Revised December 2004), and the Pass Area Circulation Plan propose a long range circulation system that includes the following improvements:

- The conversion of the I-10/Pennsylvania Avenue interchange to a complete interchange;
- Redesigning the I-10/Oak Valley Parkway interchange; and
- Redesigning of the I-10/Beaumont Avenue interchange.

General Plan Buildout Assumptions – Traffic Modeling Methodology

The City of Banning General Plan Circulation Element (Updated June 2005) included analyses of build-out conditions based on Projected traffic volumes forecast using the PAM. This model was also used to forecast build-out traffic volumes for the City of Beaumont General Plan

Circulation Element. The future traffic projections in the PAM for City of Banning General Plan Build-out conditions are based on a street network that proposes the northerly extension of Highland Home Road from Wilson Street to approximately 12th Street and then bends 90 degrees to the west and connects to Brookside Avenue rather than to Cherry Valley Boulevard. Connection of Highland Home Road to Brookside Avenue or to Cherry Valley Boulevard has very little effect on the circulation patterns in this region due to low traffic along Highland Home Road in the area around the confluence of Highland Springs Avenue, Highland Home Road, Brookside Avenue, and Cherry Valley Boulevard. Based on discussion in the traffic study for the City's General Plan, which states that "from a traffic perspective, there appears to be little advantage of one over the other" (General Plan Circulation Element, page 47), it is clear that the connection of Highland Home Road to Brookside Avenue or Cherry Valley Boulevard does not have notable effect on traffic in the area. Hence, this study analyzes the future traffic/circulation impacts using the street network that has the northerly extension of Highland Home Road connected to Brookside Avenue instead of Cherry Valley Boulevard. The I-10/Highland Home Road interchange is neither included in this program nor included in the 2008 SCAG RTP and hence is not assumed in the future network.

General Plan Buildout Conditions

Refer to Table 4.13-11, *General Plan Build-out Without and plus Project (Project Completion) Intersection Levels of Service (without mitigation)*, Table 4.13-12, *General Plan Build-out Year Without and plus Project (Project Completion) Freeway Mainline Levels of Service (without mitigation)*, Table 4.13-13, *General Plan Build-out Year plus Project With Mitigations Intersection Levels of Service*, Table 4.13-14, *General Plan Build-out Year plus Project With Mitigations Freeway Mainline Levels of Service*, show that, with mitigation, all intersections and freeway segments would operate at acceptable levels of service. As discussed above and in the "Potential Impacts of Cumulative Traffic Mitigation" below, certain improvements may not be constructed or not constructed in a timely manner, due to feasibility, cost, significant ROW impacts, or other factors. In addition, improvements outside of the City of Banning are not within the control of the City or the Applicant, and as such the EIR cannot be assured of their implementation. Therefore, with respect to cumulative traffic impacts, the EIR must find that locations outside of the City of Banning or identified below as having "potentially significant impacts" may not be implemented, thereby representing a "potentially unavoidable significant impact".

General Plan Buildout Without Project Condition Traffic Volumes

Exhibit 4.13-8 illustrates the General Plan Build-out a.m. peak hour without Project traffic volumes and Exhibit 4.13-9 illustrates the General Plan Build-out p.m. peak hour without Project traffic volumes at each of the study area intersections.

General Plan Buildout plus Project Condition Traffic Volumes

General Plan Build-out year plus Project traffic volumes were developed by adding the Project completion traffic to the General Plan Build-out year without Project traffic volumes. Exhibit 4.13-10 illustrates the General Plan Build-out year plus Project a.m. peak hour traffic volumes and Exhibit 4.13-11 illustrates the General Plan Build-out year plus Project p.m. peak hour traffic volumes at each of the study intersections.

General Plan Buildout Condition Freeway Segment Traffic Volumes

Table 4.13-15 shows the General Plan Build-out year without and plus Project peak hour segment volumes on the study area freeway segments. Detailed volume development worksheets are included in Appendix I, *Traffic Impact Analysis* (Appendix B).

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Table 4.13-11
General Plan Build-out without and plus Project (Project Completion) Intersection Levels of Service

Intersection	Control	LOS STD.	A.M. Peak Hour						P.M. Peak Hour					
			Without Project			With Project			Without Project			With Project		
			V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1. I-10 Eastbound Ramps/San Timoteo Canyon Dr.	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
2. I-10 Westbound Ramps/Oak Valley Pkwy.	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
3. Elm Ave./Oak Valley Pkwy.-14th St.	TWSC	D	-	>100	F	-	>100	F	-	>100	F	-	>100	F
4. Beaumont Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.70	25.5	C	0.88	30.00	C	0.73	25.0	C	0.96	31.6	C
5. Beaumont Ave./8th St.	AWSC	D	0.65	15.5	C	0.76	22.20	C	1.51	>100	F	1.79	>100	F
6. Beaumont Ave./I-10 Westbound Ramps	Signal	45s	1.14	85.0	F	1.14	85.30	F	0.98	39.6	D	0.98	40.9	D
7. Beaumont Ave./I-10 Eastbound Ramps	Signal	45s	0.88	32.2	C	0.88	32.00	C	1.29	>100	F	1.29	>100	F
8. Beaumont Ave./1st St.	Signal	D	0.86	30.2	C	0.87	30.50	C	2.50	>100	F	2.54	>100	F
9. Beaumont Ave./Westward Ave.	TWSC	D	-	>100	F	-	>100	F	-	>100	F	-	>100	F
10. Lamb Canyon Rd./California Ave.	TWSC	C	-	>100	F	-	>100	F	-	>100	F	-	>100	F
11. Palm Ave./Oak Valley Pkwy.-14th St.	AWSC	D	2.16	>100	F	2.85	>100	F	2.90	>100	F	3.80	>100	F
12. Palm Ave./8th St.	AWSC	D	0.79	18.7	C	1.06	56.90	F	1.95	>100	F	2.43	>100	F
13. Pennsylvania Ave./Oak Valley Pkwy.-14th St.	AWSC	D	1.33	>100	F	1.87	>100	F	2.08	>100	F	2.77	>100	F
14. Pennsylvania Ave./8th St.	AWSC	D	0.79	18.3	C	1.04	58.90	F	2.31	>100	F	2.78	>100	F
15. Pennsylvania Ave./I-10 Westbound Ramp	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
16. Pennsylvania Ave./I-10 Eastbound Ramp	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
17. Pennsylvania Ave./3rd St.	TWSC	D	-	37.2	E	-	48.90	E	-	>100	F	-	>100	F
18. Cherry Ave./Oak Valley Pkwy.-14th St.	AWSC	D	1.59	>100	F	1.64	>100	F	2.09	>100	F	3.09	>100	F
19. Starlight Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.58	16.0	C	0.94	46.20	E	1.28	>100	F	1.90	>100	F
20. Highland Springs Ave./Brookside Ave.	TWSC	C	-	>100	F	-	>100	F	-	>100	F	-	>100	F
21. Highland Springs Ave./16th St.-Cougar Way	TWSC	C	0.05	12.7	B	0.07	14.50	B	0.58	28.6	D	0.88	83.3	F
22. Highland Springs Ave./F St.			<i>Future Intersection</i>			1.54	>100	F	<i>Future Intersection</i>			2.70	>100	F
23. Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Signal	C	0.77	35.0	C	0.94	>100	F	1.12	88.2	F	1.46	>100	F
24. Highland Springs Ave./Starlight Ave.-A St.	TWSC	C	-	52.2	F	-	>100	F	-	>100	F	-	>100	F
25. Highland Springs Ave./8th St.-Wilson St.	Signal	C	0.75	36.0	D	1.14	93.20	F	0.99	58.9	E	1.64	>100	F
26. Highland Springs Ave./6th St.-Ramsey St.	Signal	D	0.93	54.3	D	1.27	>100	F	1.56	>100	F	1.86	>100	F
27. Highland Springs Ave./I-10 Westbound Ramps	Signal	45s	1.13	>100	F	1.34	>100	F	1.20	82.0	F	1.33	>100	F
28. Highland Springs Ave./I-10 Eastbound Ramps	Signal	45s	1.19	>100	F	1.47	>100	F	1.10	96.7	F	1.55	>100	F
29. Highland Springs Ave./1st St.-Sun Lakes Blvd.	Signal	C	0.64	30.0	C	0.68	30.10	C	1.37	>100	F	1.44	>100	F
30. Highland Springs Ave./Potrero Blvd.	TWSC	C	-	>100	F	-	>100	F	-	>100	F	-	>100	F
31. C St.-Apex Ave./Wilson St.	TWSC	C	-	27.4	D	-	>100	F	-	72.8	F	-	>100	F
32. Highland Home Rd./Northern Loop			<i>Future Intersection</i>			-	>100	F	<i>Future Intersection</i>			-	>100	F
33. Highland Home Rd./Beaumont Rd.-G St	TWSC	C	0.74	>100	F	-	>100	F	0.70	>100	F	-	>100	F
34. Highland Home Rd./F St.			<i>Future Intersection</i>			-	38.80	E	<i>Future Intersection</i>			-	26.1	D
35. Highland Home Rd./D St.			<i>Future Intersection</i>			-	>100	F	<i>Future Intersection</i>			-	>100	F
36. Highland Home Rd./Wilson St.	TWSC	C	-	>100	F	-	>100	F	-	>100	F	-	>100	F
37. Highland Home Rd./Ramsey St.	TWSC	D	-	27.6	D	-	>100	F	-	>100	F	-	>100	F
38. Sunset Ave./Wilson St.	AWSC	C	2.60	>100	F	2.85	>100	F	3.24	>100	F	3.96	>100	F
39. Sunset Ave./Ramsey St.	Signal	D	1.41	79.2	E	2.08	>100	F	1.68	>100	F	2.44	>100	F
40. Sunset Ave./I-10 Westbound Ramps	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
41. Sunset Ave./I-10 Eastbound Ramps	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
42. Sunrise Ave./Wilson St.	TWSC	C	-	34.0	D	-	>100	F	-	>100	F	-	>100	F
43. 16th St./Wilson St.	TWSC	C	-	14.4	B	-	22.80	C	-	28.4	D	-	>100	F
44. 8th St./Wilson St.	AWSC	C	0.93	32.3	D	1.30	82.10	F	2.55	>100	F	2.99	>100	F
45. 8th St./Ramsey St.	Signal	D	1.11	>100	F	1.14	>100	F	1.32	>100	F	1.36	>100	F
46. 8th St./I-10 Westbound Ramps	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
47. 8th St./I-10 Eastbound Ramps	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
48. 4th St./Wilson St.	AWSC	C	1.06	45.8	E	1.36	>100	F	2.08	>100	F	2.40	>100	F
49. San Geronio Ave./Wilson St.	AWSC	C	1.17	67.4	F	1.48	>100	F	2.23	>100	F	2.57	>100	F

Exceeds LOS standard.

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

AWSC=All-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.

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Table 4.13-12
General Plan Build-out Year Without and plus Project (Project Completion)
Freeway Mainline Levels of Service

Freeway Segment	Lanes			A.M. Peak Hour												P.M. Peak Hour											
				Without Project						With Project						Without Project						With Project					
	Mixed Flow	HOV	Cap.	Total Vol.	PHF ¹ Vol.	V/C	LOS	Total Vol.	PHF ¹ Vol.	V/C	LOS	Total Vol.	PHF ¹ Vol.	V/C	LOS	Total Vol.	PHF ¹ Vol.	V/C	LOS	Total Vol.	PHF ¹ Vol.	V/C	LOS	Total Vol.	PHF ¹ Vol.	V/C	LOS
EASTBOUND																											
Interstate 10																											
Cherry Valley Boulevard to Oak Valley Parkway	3	0	6,900	6,451	6,580	0.95	E	6,530	6,660	0.97	E	11,664	11,900	1.23	F *	11,840	12,080	1.25	F *	11,840	12,080	1.25	F *	11,840	12,080	1.25	F *
Oak Valley Parkway to SR-60	3	0	6,900	6,591	6,730	0.98	E	6,638	6,770	0.98	E	10,322	10,530	1.25	F *	10,428	10,640	1.24	F *	10,428	10,640	1.24	F *	10,428	10,640	1.24	F *
SR-60 to Beaumont Avenue	4	0	9,200	6,985	7,130	0.78	D	7,159	7,310	0.80	D	11,271	11,500	1.25	F *	11,659	11,900	1.29	F *	11,659	11,900	1.29	F *	11,659	11,900	1.29	F *
Beaumont Avenue to Pennsylvania Avenue	4	0	9,200	6,826	6,970	0.76	D	7,032	7,180	0.78	D	10,864	11,090	1.21	F *	11,422	11,550	1.26	F *	11,422	11,550	1.26	F *	11,422	11,550	1.26	F *
Pennsylvania Avenue to Highland Springs Avenue	4	0	9,200	7,718	7,880	0.86	D	7,924	8,090	0.88	D	11,775	12,020	1.31	F *	12,233	12,480	1.36	F *	12,233	12,480	1.36	F *	12,233	12,480	1.36	F *
Highland Springs Avenue to Sunset Avenue	4	0	9,200	7,729	7,890	0.86	D	7,820	7,980	0.87	D	11,251	11,480	1.25	F *	11,325	11,560	1.26	F *	11,325	11,560	1.26	F *	11,325	11,560	1.26	F *
Sunset Avenue to 22nd Street	4	0	9,200	7,851	8,010	0.87	D	8,095	8,260	0.90	E	9,969	10,170	1.41	F *	10,167	10,370	1.13	F *	10,167	10,370	1.13	F *	10,167	10,370	1.13	F *
22nd Street to 8th Street	4	0	9,200	7,643	7,800	0.85	D	7,826	7,990	0.87	D	9,381	9,570	1.04	F *	9,529	9,720	1.06	F *	9,529	9,720	1.06	F *	9,529	9,720	1.06	F *
8th Street to Hargrave Street	4	0	9,200	7,456	7,610	0.83	D	7,547	7,700	0.84	D	9,154	9,340	1.02	F *	9,227	9,420	1.02	F *	9,227	9,420	1.02	F *	9,227	9,420	1.02	F *
Hargrave Street to Ramsey Street	4	0	9,200	6,889	7,030	0.76	D	6,980	7,120	0.77	D	8,456	8,630	0.94	E	8,530	8,700	0.95	E	8,530	8,700	0.95	E	8,530	8,700	0.95	E
SR-60																											
Jack Rabbit Trail to I-10	2	0	4,600	2,727	2,780	0.60	C	2,854	2,910	0.63	C	5,615	5,730	1.25	F *	5,897	6,020	1.31	F *	5,897	6,020	1.31	F *	5,897	6,020	1.31	F *
WESTBOUND																											
Interstate 10																											
Cherry Valley Boulevard to Oak Valley Parkway	3	0	6,900	11,045	11,270	1.63	P *	11,197	11,430	1.66	F *	10,187	10,390	1.51	F *	10,511	10,520	1.53	F *	10,511	10,520	1.53	F *	10,511	10,520	1.53	F *
Oak Valley Parkway to SR-60	3	0	6,900	9,228	9,420	1.37	F *	9,319	9,510	1.38	F *	10,209	10,420	1.51	F *	10,283	10,490	1.52	F *	10,283	10,490	1.52	F *	10,283	10,490	1.52	F *
SR-60 to Beaumont Avenue	4	0	9,200	9,205	9,390	1.02	F *	9,540	9,730	1.06	F *	10,975	11,200	1.22	F *	11,247	11,480	1.25	F *	11,247	11,480	1.25	F *	11,247	11,480	1.25	F *
Beaumont Avenue to Pennsylvania Avenue	4	0	9,200	9,035	9,220	1.00	F *	9,431	9,620	1.05	F *	10,887	11,110	1.21	F *	11,208	11,440	1.24	F *	11,208	11,440	1.24	F *	11,208	11,440	1.24	F *
Pennsylvania Avenue to Highland Springs Avenue	4	0	9,200	9,587	9,780	1.06	F *	9,983	10,190	1.11	F *	11,632	11,870	1.29	F *	11,953	12,200	1.33	F *	11,953	12,200	1.33	F *	11,953	12,200	1.33	F *
Highland Springs Avenue to Sunset Avenue	4	0	9,200	8,654	8,830	0.96	E	8,701	8,880	0.97	E	11,539	11,770	1.28	F *	11,645	11,880	1.29	F *	11,645	11,880	1.29	F *	11,645	11,880	1.29	F *
Sunset Avenue to 22nd Street	4	0	9,200	7,568	7,720	0.84	D	7,695	7,850	0.85	D	10,511	10,760	1.17	F *	10,793	11,010	1.20	F *	10,793	11,010	1.20	F *	10,793	11,010	1.20	F *
22nd Street to 8th Street	4	0	9,200	6,885	7,030	0.76	D	6,980	7,120	0.77	D	10,139	10,350	1.13	F *	10,351	10,560	1.15	F *	10,351	10,560	1.15	F *	10,351	10,560	1.15	F *
8th Street to Hargrave Street	4	0	9,200	6,718	6,850	0.75	D	6,765	6,900	0.75	D	9,893	10,090	1.10	F *	9,999	10,200	1.11	F *	9,999	10,200	1.11	F *	9,999	10,200	1.11	F *
Hargrave Street to Ramsey Street	4	0	9,200	6,206	6,330	0.69	D	6,253	6,380	0.69	D	9,140	9,330	1.01	F *	9,246	9,430	1.03	F *	9,246	9,430	1.03	F *	9,246	9,430	1.03	F *
SR-60																											
Jack Rabbit Trail to I-10	2	0	4,600	3,957	4,040	0.88	D	4,201	4,290	0.93	E	4,651	4,750	1.03	F *	4,849	4,950	1.08	F *	4,849	4,950	1.08	F *	4,849	4,950	1.08	F *

* Shorter level of service standard.

E Exceeds level of service standard.

* Peak Hour Factor: PHF volume assumes a PHF of 0.89.

Note:

According to the CND, the capacity of a mixed flow lane is 1,900 vehicles per hour, and the capacity of an HOV lane is 1,600 vehicles per hour.

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Table 4.13-13
General Plan Build-out Year plus Project with Mitigations Intersection Level of Service

Intersection	Control	LOS STD.	A.M. Peak Hour			P.M. Peak Hour		
			V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1 . I-10 Eastbound Ramps/San Timoteo Canyon Dr.	Signal	45s	0.52	14.4	B	0.74	28.4	C
2 . I-10 Westbound Ramps/Oak Valley Pkwy.	Signal	45s	0.96	20.0	B	0.95	23.2	C
3 . Elm Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.87	34.9	C	0.90	36.7	D
4 . Beaumont Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.88	30.0	C	0.96	31.6	C
5 . Beaumont Ave./8th St.	Signal	D	0.50	20.6	C	0.90	40.8	D
6 . Beaumont Ave./I-10 Westbound Ramps	Signal	45s	0.94	42.5	D	0.94	42.8	D
7 . Beaumont Ave./I-10 Eastbound Ramps	Signal	45s	0.77	27.2	C	0.97	37.1	D
8 . Beaumont Ave./1st St.	Signal	D	0.70	29.9	C	1.00	54.4	D
9 . Beaumont Ave./Westward Ave.	Signal	D	0.69	32.5	C	0.94	52.2	D
10 . Lamb Canyon Rd./California Ave.	Signal	C	0.77	30.5	C	0.83	34.2	C
11 . Palm Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.52	13.0	B	0.78	20.2	C
12 . Palm Ave./8th St.	Signal	D	0.54	19.1	B	0.91	33.9	C
13 . Pennsylvania Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.51	16.4	B	0.89	28.2	C
14 . Pennsylvania Ave./8th St.	Signal	D	0.52	19.3	B	0.89	32.9	C
15 . Pennsylvania Ave./I-10 Westbound Ramp	Signal	45s	0.77	29.1	C	0.96	43.4	D
16 . Pennsylvania Ave./I-10 Eastbound Ramp	Signal	45s	0.66	33.3	C	0.85	31.6	C
17 . Pennsylvania Ave./3rd St.	TWSC	D	-	18.9	C	-	33.3	D
18 . Cherry Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.84	34.7	C	0.96	53.5	D
19 . Starlight Ave/ Oak Valley Pkwy.-14th St.	Signal	D	0.46	27.0	C	0.70	28.1	C
20 . Highland Springs Ave./Brookside Ave.	Signal	C	0.49	24.9	C	0.77	30.3	C
21 . Highland Springs Ave./16th St.-Cougar Way	Signal	C	0.30	3.9	A	0.51	12.8	B
22 . Highland Springs Ave./F St.	Signal	C	0.59	19.8	B	0.63	17.4	B
23 . Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Signal	C	0.69	30.0	C	0.75	30.3	C
24 . Highland Springs Ave./Starlight Ave.-A St.	Signal	C	0.81	33.8	C	0.88	34.0	C
25 . Highland Springs Ave./8th St.-Wilson St.	Signal	C	0.76	31.1	C	0.81	34.9	C
26 . Highland Springs Ave./6th St.-Ramsey St.	Signal	D	0.77	28.5	C	0.93	38.9	D
27 . Highland Springs Ave./I-10 Westbound Ramps	Signal	45s	0.93	38.0	D	0.89	16.7	B
28 . Highland Springs Ave./I-10 Eastbound Ramps	Signal	45s	0.75	30.8	C	0.78	22.6	C
29 . Highland Springs Ave./1st St.-Sun Lakes Blvd.	Signal	C	0.55	26.8	C	0.84	34.7	C
30 . Highland Springs Ave./Potrero Blvd.	Signal	C	0.45	21.9	C	0.56	18.8	B
31 . C St.-Apex Ave./Wilson St.	Signal	C	0.66	25.8	C	0.76	25.2	C
32 . Highland Home Rd./Northern Loop	Signal	C	0.60	29.2	C	0.85	31.5	C
33 . Highland Home Rd./Beaumont Rd.-G St	Signal	C	0.69	32.2	C	0.76	31.9	C
34 . Highland Home Rd./F St.	Signal	C	0.79	24.1	C	0.82	24.6	C
35 . Highland Home Rd./D St.	Signal	C	0.81	14.9	B	0.89	15.0	B
36 . Highland Home Rd./Wilson St.	Signal	C	0.69	25.2	C	0.84	33.4	C
37 . Highland Home Rd./Ramsey St.	Signal	D	0.61	23.0	C	0.96	37.0	D
38 . Sunset Ave./Wilson St.	Signal	C	0.66	28.0	C	0.87	34.9	C
39 . Sunset Ave./Ramsey St.	Signal	D	0.79	34.0	C	0.97	53.5	D
40 . Sunset Ave./I-10 Westbound Ramps	Signal	45s	0.96	45.3	D	0.82	44.1	D
41 . Sunset Ave./I-10 Eastbound Ramps	Signal	45s	0.91	37.2	D	0.98	42.2	D
42 . Sunrise Ave./Wilson St.	Signal	C	0.40	11.1	B	0.79	20.3	C
43 . 16th St./Wilson St.	Signal	C	0.29	6.4	A	0.55	10.1	B
44 . 8th St./Wilson St.	Signal	C	0.58	23.0	C	0.91	34.2	C
45 . 8th St./Ramsey St.	Signal	D	0.75	35.7	D	0.85	42.8	D
46 . 8th St./I-10 Westbound Ramps	Signal	45s	0.92	32.3	C	0.95	41.8	D
47 . 8th St./I-10 Eastbound Ramps	Signal	45s	0.73	31.3	C	0.99	41.8	D
48 . 4th St./Wilson St.	Signal	C	0.69	18.6	B	0.95	25.7	C
49 . San Geronio Ave./Wilson St.	Signal	C	0.54	28.0	C	0.88	33.3	C

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.

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4.13 TRAFFIC AND TRANSPORTATION

Table 4.13-14
General Plan Build-out Year plus Project with Mitigations Freeway
Mainline Level of Service

Freeway Segment	Lanes			A.M. Peak Hour				P.M. Peak Hour			
	Flow	HOV	Cap.	Total Vol.	PHF ¹ Vol.	V/C	LOS	Total Vol.	PHF ¹ Vol.	V/C	LOS
EASTBOUND											
Interstate 10											
Cherry Valley Boulevard to Oak Valley Parkway	5	1	13,100	6,530	6,660	0.508	B	11,840	12,080	0.922	E
Oak Valley Parkway to SR-60	4	1	10,800	6,638	6,770	0.627	B	10,428	10,640	0.985	E
SR-60 to Beaumont Avenue	5	1	13,100	7,159	7,310	0.558	B	11,659	11,900	0.908	E
Beaumont Avenue to Pennsylvania Avenue	5	1	13,100	7,032	7,180	0.548	B	11,322	11,550	0.882	E
Pennsylvania Avenue to Highland Springs Avenue	5	1	13,100	7,924	8,090	0.618	B	12,233	12,480	0.953	E
Highland Springs Avenue to Sunset Avenue	5	1	13,100	7,820	7,980	0.609	B	11,325	11,560	0.882	E
Sunset Avenue to 22nd Street	4	1	10,800	8,095	8,260	0.765	D	10,167	10,370	0.960	E
22nd Street to 8th Street	4	1	10,800	7,826	7,990	0.740	D	9,529	9,720	0.900	E
8th Street to Hargrave Street	4	1	10,800	7,547	7,700	0.713	D	9,227	9,420	0.872	D
Hargrave Street to Ramsey Street	4	0	9,200	6,980	7,120	0.774	D	8,530	8,700	0.946	E
SR-60											
Jack Rabbit Trail to I-10	2	1	6,200	2,854	2,910	0.469	B	5,897	6,020	0.971	E
WESTBOUND											
Interstate 10											
Cherry Valley Boulevard to Oak Valley Parkway	5	1	13,100	11,197	11,430	0.873	D	10,311	10,520	0.803	D
Oak Valley Parkway to SR-60	4	1	10,800	9,319	9,510	0.881	E	10,283	10,490	0.971	E
SR-60 to Beaumont Avenue	5	1	13,100	9,540	9,730	0.743	D	11,247	11,480	0.876	D
Beaumont Avenue to Pennsylvania Avenue	5	1	13,100	9,431	9,620	0.734	D	11,208	11,440	0.873	D
Pennsylvania Avenue to Highland Springs Avenue	5	1	13,100	9,983	10,190	0.778	D	11,953	12,200	0.931	E
Highland Springs Avenue to Sunset Avenue	5	1	13,100	8,701	8,880	0.678	B	11,645	11,880	0.907	E
Sunset Avenue to 22nd Street	5	1	13,100	7,695	7,850	0.599	B	10,793	11,010	0.840	D
22nd Street to 8th Street	4	1	10,800	6,980	7,120	0.659	B	10,351	10,560	0.978	E
8th Street to Hargrave Street	4	1	10,800	6,765	6,900	0.639	B	9,999	10,200	0.944	E
Hargrave Street to Ramsey Street	4	1	10,800	6,253	6,380	0.591	B	9,246	9,430	0.873	D
SR-60											
Jack Rabbit Trail to I-10	2	1	6,200	4,201	4,290	0.692	D	4,849	4,950	0.798	D

* Exceeds level of service standard

¹ Peak Hour Factor. PHF volume assumes a PHF of 0.98.

Note:

According to the CMP, the capacity of a mixed-flow lane is 2,300 vehicles per hour, and the capacity of an HOV lane is 1,600 vehicles per hour.

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4.13 TRAFFIC AND TRANSPORTATION

Table 4.13-15
General Plan Build-out Conditions Freeway Segment PCE Volumes

Freeway Segment	A.M. Peak Hour															
	Eastbound								Westbound							
	Model Volume	Select Zone	Total Volume	Truck %	Auto	Truck	Truck PCE	Without Project PCE	Project Trips	With Project PCE	Model Volume	Select Zone	Total Volume	Truck %	Auto	Truck
Interstate 10																
Cherry Valley Boulevard to Oak Valley Parkway	6,120	66	6,054	13.10%	5,251	793	1190	6,451	79	6,530	10,675	309	10,366	13.10%	9,008	1358
Oak Valley Parkway to SR-60	6,220	46	6,174	13.50%	5,341	833	1250	6,591	47	6,638	8,733	89	8,644	13.50%	7,477	1167
SR-60 to Beament Avenue	6,884	141	6,543	13.50%	5,640	893	1325	6,983	174	7,159	8,987	344	8,623	13.50%	7,459	1164
Beament Avenue to Pennsylvania Avenue	6,534	170	6,364	14.50%	5,441	923	1355	6,926	206	7,132	8,886	462	8,424	14.50%	7,203	1221
Pennsylvania Avenue to Highland Springs Avenue	7,416	220	7,195	14.50%	6,153	1041	1555	7,718	206	7,924	9,531	594	8,939	14.50%	7,643	1294
Highland Springs Avenue to Sunset Avenue	7,288	82	7,206	14.50%	6,161	1045	1568	7,729	91	7,820	8,151	82	8,069	14.50%	6,899	1170
Sunset Avenue to 22nd Street	7,637	310	7,327	14.50%	6,279	1048	1572	7,851	244	8,095	7,182	119	7,063	14.50%	6,053	1010
22nd Street to 8th Street	7,441	NM	7,133	14.50%	6,113	1020	1530	7,643	183	7,826	6,531	106	6,425	14.50%	5,506	919
8th Street to Hargrave Street								7,456	91	7,547						
Hargrave Street to Ramsey Street								8,808	91	8,900						
SR-60																
Jack Rabbit Trail to I-10	2,616	85	2,531	16.50%	2,110	411	617	2,727	127	2,854	3,934	275	3,659	16.50%	3,083	596

Freeway Segment	P.M. Peak Hour															
	Eastbound								Westbound							
	Model Volume	Select Zone	Total Volume	Truck %	Auto	Truck	Truck PCE	Without Project PCE	Project Trips	With Project PCE	Model Volume	Select Zone	Total Volume	Truck %	Auto	Truck
Interstate 10																
Cherry Valley Boulevard to Oak Valley Parkway	11,151	204	10,947	13.10%	9,513	1434	2151	11,664	176	11,840	9,682	121	9,561	13.10%	8,309	1252
Oak Valley Parkway to SR-60	9,786	97	9,689	13.50%	8,364	1305	1958	10,322	106	10,428	9,622	59	9,563	13.50%	8,272	1291
SR-60 to Beament Avenue	10,879	321	10,558	13.50%	9,133	1425	2138	11,271	388	11,659	10,473	192	10,281	13.50%	8,893	1388
Beament Avenue to Pennsylvania Avenue	10,508	179	10,329	14.50%	8,660	1469	2204	10,864	458	11,322	10,410	259	10,151	14.50%	8,679	1472
Pennsylvania Avenue to Highland Springs Avenue	11,496	317	10,979	14.50%	9,387	1592	2389	11,775	458	12,233	11,259	314	10,845	14.50%	9,272	1573
Highland Springs Avenue to Sunset Avenue	10,591	101	10,490	14.50%	8,969	1521	2282	11,251	74	11,325	10,887	128	10,759	14.50%	9,199	1560
Sunset Avenue to 22nd Street	8,477	178	8,304	14.50%	7,074	1330	1993	8,968	198	9,167	10,154	345	9,809	14.50%	8,405	1403
22nd Street to 8th Street	8,912	157	8,755	14.50%	7,503	1252	1978	9,381	149	9,529	9,788	326	9,462	14.50%	8,109	1333
8th Street to Hargrave Street								9,153	74	9,227						
Hargrave Street to Ramsey Street								8,456	74	8,530						
SR-60																
Jack Rabbit Trail to I-10	5,491	299	5,192	16.50%	4,346	846	1269	5,815	282	5,997	4,438	158	4,300	16.50%	3,595	701

Mitigation for Cumulative Impacts

As described above, the Project's contribution toward cumulative mitigation is in the form of TUMF fees and other contributions such as Project-related gas tax, property tax and General Fund revenue. Table 4.13-9 provides a summary of all recommended future improvements, for Existing plus Project and General Plan build-out conditions. Table 4.13-16 *Project Contribution to Total New Traffic*, and Table 4.13-17, *Project Contribution to Total New Freeway Traffic Volumes*, show the Project's relative share of the projected future traffic growth.

TRF-4 The applicant shall pay a fair share toward cumulative impacts not otherwise captured in existing fee programs, funding sources or in lieu improvements noted above, if such a program is in place at the time of building permit issuance, based on project contribution percentages identified in Table 4.13-16.

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Table 4.13-16
Project Contribution to Total New Traffic

Intersection	A.M. Peak Hour					P.M. Peak Hour					Worst Case
	Total Approach Volume		Total Growth	Project Trips	Project %	Total Approach Volume		Total Growth	Project Trips	Project %	
	Existing	2045				Existing	2045				
1. I-10 Eastbound Ramps/San Timoteo Canyon Dr.	983	6,103	5,120	217	4.2%	1,097	7,063	5,966	311	5.2%	5.2%
2. I-10 Westbound Ramps/Oak Valley Pkwy.	1,452	6,259	4,807	278	5.8%	1,290	7,514	6,224	360	5.8%	5.8%
3. Elm Ave/Oak Valley Pkwy.-14th St.	1,024	3,194	2,170	371	17.1%	850	4,378	3,528	480	13.6%	17.1%
4. Beaumont Ave/Oak Valley Pkwy.-14th St.	1,906	3,498	1,592	417	26.2%	1,661	4,308	2,647	540	20.4%	26.2%
5. Beaumont Ave/8th St.	799	1,617	818	231	28.2%	991	3,123	2,132	300	14.1%	28.2%
6. Beaumont Ave/I-10 Westbound Ramps	1,270	3,472	2,202	61	2.8%	1,582	4,828	3,246	49	1.5%	2.8%
7. Beaumont Ave/I-10 Eastbound Ramps	1,946	3,521	1,575	93	5.9%	2,265	5,181	2,916	120	4.1%	5.9%
8. Beaumont Ave/1st St.	2,337	3,687	1,350	93	6.9%	2,665	5,348	2,683	120	4.5%	6.9%
9. Beaumont Ave/Westward Ave.	1,927	3,254	1,327	93	7.0%	2,158	4,634	2,476	120	4.8%	7.0%
10. Lamb Canyon Rd/California Ave.	2,193	2,783	590	46	7.8%	2,435	3,630	1,195	60	5.0%	7.8%
11. Palm Ave/Oak Valley Pkwy.-14th St.	1,201	2,897	1,696	462	27.2%	1,007	3,933	2,926	600	20.5%	27.2%
12. Palm Ave/8th St.	558	1,517	959	324	33.8%	388	2,673	2,285	420	18.4%	33.8%
13. Pennsylvania Ave/Oak Valley Pkwy.-14th St.	930	2,371	1,441	509	35.3%	781	3,310	2,529	660	26.1%	35.3%
14. Pennsylvania Ave/8th St.	834	1,542	708	370	52.3%	725	3,286	2,561	480	18.7%	52.3%
15. Pennsylvania Ave/I-10 Westbound Ramp	902	2,555	1,653	185	11.2%	1,129	3,440	2,311	240	10.4%	11.2%
16. Pennsylvania Ave/I-10 Eastbound Ramp	847	2,209	1,362	185	13.6%	962	3,207	2,245	240	10.7%	13.6%
17. Pennsylvania Ave/3rd St.	650	1,795	1,145	185	16.2%	809	2,745	1,936	240	12.4%	16.2%
18. Cherry Ave/Oak Valley Pkwy.-14th St.	1,224	2,740	1,516	509	33.6%	913	3,635	2,722	660	24.2%	33.6%
19. Starlight Ave/ Oak Valley Pkwy.-14th St.	706	2,040	1,334	601	45.1%	544	3,231	2,687	780	29.0%	45.1%
20. Highland Springs Ave./Brookside Ave.	458	2,699	2,241	649	29.0%	422	4,371	3,949	840	21.3%	29.0%
21. Highland Springs Ave./16th St.-Cougar Way	456	842	386	232	60.1%	420	1,374	954	300	31.4%	60.1%
22. Highland Springs Ave./P St.	-	-	-	926	100.0%	-	-	-	1,200	100.0%	100.0%
23. Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	762	3,037	2,275	1,664	73.1%	720	4,435	3,715	2,158	58.1%	73.1%
24. Highland Springs Ave./Starlight Ave.-A St.	1,034	3,623	2,589	1,712	66.1%	1,108	5,076	3,968	2,219	55.9%	66.1%
25. Highland Springs Ave./8th St.-Wilson St.	1,522	4,065	2,543	1,619	63.7%	1,625	5,537	3,912	2,100	53.7%	63.7%
26. Highland Springs Ave./6th St.-Ramsey St.	1,917	5,254	3,337	1,342	40.2%	2,527	7,031	4,504	1,739	38.6%	40.2%
27. Highland Springs Ave./I-10 Westbound Ramps	1,788	5,388	3,600	1,203	33.4%	2,576	5,603	3,027	1,559	51.5%	51.5%
28. Highland Springs Ave./I-10 Eastbound Ramps	1,802	4,700	2,898	759	26.2%	2,754	5,053	2,299	1,132	49.2%	49.2%
29. Highland Springs Ave./1st St.-Sun Lakes Blvd.	835	3,060	2,225	277	12.4%	1,168	5,434	4,266	360	8.4%	12.4%
30. Highland Springs Ave./Potrero Blvd.	293	2,042	1,749	184	10.5%	357	2,771	2,414	240	9.9%	10.5%
31. C St.-Apex Ave./Wilson St.	626	2,054	1,428	693	48.5%	657	3,048	2,391	900	37.6%	48.5%
32. Highland Home Rd./Northern Loop	-	-	-	971	100.0%	-	-	-	1,259	100.0%	100.0%
33. Highland Home Rd./Beaumont Rd.-G St.	-	-	-	649	100.0%	-	-	-	840	100.0%	100.0%
34. Highland Home Rd./P St.	-	-	-	879	100.0%	-	-	-	1,140	100.0%	100.0%
35. Highland Home Rd./D St.	-	-	-	1,203	100.0%	-	-	-	1,560	100.0%	100.0%
36. Highland Home Rd./Wilson St.	628	3,543	2,915	1,386	47.5%	690	5,326	4,636	1,800	38.8%	47.5%
37. Highland Home Rd./Ramsey St.	589	2,228	1,639	740	45.1%	868	4,031	3,163	960	30.4%	45.1%
38. Sunset Ave./Wilson St.	730	3,096	2,366	510	21.6%	799	5,030	4,231	660	15.6%	21.6%
39. Sunset Ave./Ramsey St.	1,069	3,827	2,758	555	20.1%	1,349	6,240	4,891	720	14.7%	20.1%
40. Sunset Ave./I-10 Westbound Ramps	668	3,539	2,871	370	12.9%	809	4,464	3,655	480	13.1%	13.1%
41. Sunset Ave./I-10 Eastbound Ramps	446	2,924	2,478	322	13.0%	577	3,923	3,346	374	11.2%	13.0%
42. Sunrise Ave./Wilson St.	436	1,580	1,144	417	36.5%	435	3,179	2,744	540	19.7%	36.5%
43. 16th St./Wilson St.	405	1,226	821	324	39.5%	409	2,754	2,345	420	17.9%	39.5%
44. 8th St/Wilson St.	820	1,701	881	231	26.2%	626	3,042	2,416	300	12.4%	26.2%
45. 8th St/Ramsey St.	1,236	2,464	1,228	92	7.5%	1,551	3,809	2,258	120	5.3%	7.5%
46. 8th St/I-10 Westbound Ramps	1,086	2,711	1,625	109	6.7%	1,130	3,269	2,139	155	7.2%	7.2%
47. 8th St/I-10 Eastbound Ramps	952	2,517	1,565	107	6.8%	912	3,120	2,208	109	4.9%	6.8%
48. 4th St/Wilson St.	436	1,631	1,195	231	19.3%	368	2,809	2,441	300	12.3%	19.3%
49. San Geronio Ave./Wilson St.	507	1,644	1,137	231	20.3%	449	2,956	2,507	300	12.0%	20.3%

Note: At project driveways, which are new intersections, project traffic contribution is 100% since the intersection would not exist without the project.

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Table 4.13-17
Project Contribution to Total New Freeway Traffic Volumes

Freeway Segments	A.M. Peak Hour					P.M. Peak Hour					Worse Case Project % ²
	Exist. Vol.	GPBO ¹ Proj. Vol.	Total Growth	Project Trips	Project %	Exist. Vol.	GPBO ¹ Proj. Vol.	Total Growth	Project Trips	Project %	
EASTBOUND											
Interstate 10											
Cherry Valley Boulevard to Oak Valley Parkway	5,135	6,530	1,395	79	5.7%	5,448	11,840	6,392	176	2.8%	2.8%
Oak Valley Parkway to SR-60	5,099	6,638	1,539	47	3.1%	5,331	10,428	5,097	106	2.1%	2.1%
SR-60 to Beaumont Avenue	6,202	7,159	957	174	18.2%	6,175	11,659	5,484	388	7.1%	7.1%
Beaumont Avenue to Pennsylvania Avenue	6,264	7,032	768	206	26.8%	6,547	11,322	4,775	458	9.6%	9.6%
Pennsylvania Avenue to Highland Springs Avenue	7,591	7,924	333	206	61.9%	7,857	12,233	4,376	458	10.5%	10.5%
Highland Springs Avenue to Sunset Avenue	7,325	7,820	495	91	18.4%	7,559	11,325	3,766	74	2.0%	2.0%
Sunset Avenue to 22nd Street	7,164	8,095	931	244	26.2%	7,321	10,167	2,846	198	7.0%	7.0%
22nd Street to 8th Street	6,992	7,826	834	183	21.9%	7,128	9,529	2,401	148	6.2%	6.2%
8th Street to Hargrave Street	6,821	7,547	726	91	12.5%	6,955	9,227	2,273	74	3.3%	3.3%
Hargrave Street to Ramsey Street	6,303	6,980	678	91	13.4%	6,425	8,530	2,105	74	3.5%	3.5%
SR-60											
Jack Rabbit Trail to I-10	2,181	2,854	673	127	18.9%	2,440	5,897	3,457	282	8.2%	8.2%
WESTBOUND											
Interstate 10											
Cherry Valley Boulevard to Oak Valley Parkway	4,219	11,197	6,978	152	2.2%	4,296	10,311	6,015	124	2.1%	2.2%
Oak Valley Parkway to SR-60	4,088	9,319	5,231	91	1.7%	4,263	10,283	6,020	74	1.2%	1.2%
SR-60 to Beaumont Avenue	4,496	9,540	5,044	335	6.6%	5,299	11,247	5,948	272	4.6%	4.6%
Beaumont Avenue to Pennsylvania Avenue	4,534	9,431	4,897	396	8.1%	5,396	11,208	5,812	321	5.5%	5.5%
Pennsylvania Avenue to Highland Springs Avenue	5,946	9,983	4,037	396	9.8%	6,242	11,933	5,711	321	5.6%	5.6%
Highland Springs Avenue to Sunset Avenue	5,693	8,701	3,008	47	1.6%	6,028	11,645	5,617	106	1.9%	1.9%
Sunset Avenue to 22nd Street	5,508	7,695	2,187	127	5.8%	5,842	10,793	4,951	282	5.7%	5.7%
22nd Street to 8th Street	5,350	6,980	1,630	95	5.8%	5,695	10,351	4,656	212	4.6%	4.6%
8th Street to Hargrave Street	5,220	6,765	1,545	47	3.0%	5,557	9,999	4,442	106	2.4%	2.4%
Hargrave Street to Ramsey Street	4,822	6,253	1,431	47	3.3%	5,134	9,246	4,112	106	2.6%	2.6%
SR-60											
Jack Rabbit Trail to I-10	2,019	4,201	2,182	244	11.2%	1,536	4,849	3,313	198	6.0%	6.0%

¹ The interchange on Pennsylvania Avenue is expected to be upgraded to a full diamond interchange before General Plan build-out year.² GPBO: General Plan Build-out³ Project Contribution Percentage (%) based on project contribution in the worse case (V/C) scenario between a.m. and p.m. peak hours.**Potential Impacts of Cumulative Traffic Mitigation**

Additional right-of-way necessary to improve various intersection traffic conditions could result in impacts to land use or biological resources. The following is a list of intersections that may require additional right-of-way for improvements. This discussion is based on a preliminary assessment of potential improvement geometrics, potential additional ROW, and potential impacts related to the additional ROW acquisition. The applicable jurisdiction(s) will conduct preliminary design studies, prepare final design plans, and determine whether or not additional CEQA review is required for each individual improvement.

Cumulative Improvements with no anticipated significant impacts

The following improvements are anticipated to not require any additional right-of-way, such as signals or restriping (location numbers refer to Study Area locations as shown in Exhibit 4.13-3, *Study Area Intersections*): 10, 12, 13, 14, 17, 18, 19, 21, 30, 37, and 43.

Cumulative improvements with relatively minor right-of-way requirements

5: Beaumont/8th – relatively minor additional ROW, would likely require loss of landscape frontage for existing commercial uses south of 8th

8: Beaumont/1st – this is a major Beaumont improvement requiring between 12 and 18 feet of additional ROW, primarily along the southbound and westbound improvements. Most of these improvements are not required until General Plan buildout. Improvements may require loss of landscaping and/or parking for existing commercial structures.

9: Beaumont/Westward – similar to #8, this would require approximately 8 to 24 feet of additional ROW, from the north, south and eastbound approaches. This area is currently vacant agricultural land.

11: Palm/Oak Valley/14th – this would require approximately 8 feet of additional ROW for eastbound and westbound through lanes, potentially requiring loss of landscaping and impacting existing residences that front onto Oak Valley Parkway. Refer to improvement #3 discussion below.

15/16: Pennsylvania/I-10 ramps – this is a Caltrans improvement requiring approximately 12 feet of additional ROW at the ramps, affecting existing landscaping, and requiring through lane widening for the underpass.

23: Highland Springs/Oak Valley/14th – these improvements are mostly within the Project. Southbound through lane improvements on Highland Springs Avenue may require modifications to the existing drainage channel along the west side of Highland Springs Avenue.

24: Highland Springs/Starlight – similar to #23 above, this intersection requires major improvements, although most are within (and accounted for in) the Project, or planned as part of the adjacent Sundance development. Highland Springs Avenue widening may require drainage channel modifications.

36: Highland Home/Wilson – this improvement would occur within the Project, and has been addressed throughout the EIR.

40/41 – Sunset/I-10 Ramps – this is a Caltrans improvement requiring an additional 10 to 20 feet of ROW, primarily affecting existing landscaped freeway slopes, but also requiring widening of the existing underpass.

44: 8th/Wilson – this improvement requires 12 feet of additional ROW in the northbound approach, potentially affecting three residences that front 8th Street in the southeast quadrant (potential loss of frontyard landscaping and driveway modification).

Cumulative improvements with potentially significant impacts and/or feasibility concerns

1: San Timoteo/I-10 – this is a major Caltrans improvement, with estimated additional ROW between 24 and 40 feet at the intersection and approaches. This location appears bordered by mostly disturbed areas and non-native vegetation, although there are a few mature trees east of the eastbound ramps (on Caltrans landscaped slopes), and the area west of the eastbound ramps appear to contain native vegetation and a few scattered trees. Refer to mitigation measure TRF-3 for special design considerations.

2: Oak Valley/I-10 – similar to #1, this is a major Caltrans improvement, requiring an estimated 16 to 24 feet of additional ROW. The area appears to consist mostly of disturbed lands. Improvements shown at intersections 1 and 2 indicate a need for a widening bridge over I-10.

3: Elm/Oak Valley/14th – this is a major improvement needed as part of City of Beaumont General Plan buildout (but not before), requiring 8 to 24 feet of additional ROW. Improvements for locations 2, 3, 4, 11, 13 and 18 indicate a need for widening Oak Valley Parkway from the City's urban core westerly to the I-10. This improvement would have considerable ROW impacts including adjacent developed parcels, a major crossing of San Timoteo Creek and smaller drainages, potential loss of existing vegetation and mature trees, and potential loss of existing landscaped areas. Residential areas "front" onto this section of Oak Valley Parkway, making cumulative noise, traffic and access mitigation difficult.

6: Beaumont/I-10 westbound ramps – this is a major Caltrans improvement requiring approximately 6 to 12 feet of additional ROW, including widening of the existing I-10 bridge. The affected area appears to primarily consist of landscaped Caltrans slopes and mature trees.

7: Beaumont/I-10 Eastbound ramps – similar to #6 above, this improvement would require approximately 6 to 12 feet of additional ROW and widening the existing bridge.

20: Highland Springs/Brookside – this location requires substantial ROW at General Plan buildout, affecting the existing golf course and homes in the northwest quadrant. The ultimate improvements would be six lanes wide on Brookside west of Highland Springs Avenue. While much of the widening could occur within the undeveloped land along the south side of Brookside, the ultimate improvements may impact existing homes along the north side. On a broader level, the ultimate widening of Brookside as a County roadway would impact existing residences and other uses along Brookside for its length, from Highland Springs to I-10, shown as a Secondary Arterial with an 88' ROW.

25: Highland Springs/Wilson – this improvement will require substantial ROW within the Project, as well as approximately 20 feet of ROW for the northbound improvements affecting the hospital parking area, 20 feet of ROW for southbound improvements (which could be at least partially accommodated by shifting the centerline east to absorb impacts within the

Project), and 12 feet for eastbound improvements (affecting a currently vacant commercial parcel). The southbound improvements may require drainage channel modification. The northbound improvements may result in substantial impact to the hospital parking lot, including loss of 34 parking spaces along Highlands Springs Avenue. The second northbound through lane is only required in General Plan buildout, and could be avoided if the City accepted an LOS D standard at this location, potentially avoiding significant impacts to hospital parking. *This improvement may not be feasible due to extensive ROW acquisition and commercial property impacts on Highland Springs between the I-10 westbound off-ramp and Wilson Street.*

26: Highland Springs/6th/Ramsey – this improvement only has significant impacts in the General Plan buildout condition, requiring widening of Highland Springs Avenue as well as intersection improvements, affecting adjacent landscape and parking. Northbound through lane additions would require approximately 24 feet of additional ROW, and may require removal of both commercial buildings located at the southeast intersection quadrant. *This improvement may not be feasible due to extensive ROW acquisition and commercial property impacts on Highland Springs between the I-10 westbound off-ramp and Wilson Street.*

27: Highland Springs/I-10 Westbound Ramps – this is a major Caltrans improvement, necessary only in the General Plan buildout condition, requiring significant ROW for westbound ramp widening (affecting Caltrans ROW and disturbed slope areas), as well as widening the existing I-10 underpass. As noted above, the Applicant is working extensively with Banning, Beaumont and Caltrans in addressing both interim and long-term solutions for Highland Springs/I-10 improvements.

28: Highland Springs/I-10 Eastbound Ramps – similar to #27 above, this improvement will require substantial ROW, mostly affecting Caltrans slopes and landscaped areas, as well as widening of the existing underpass.

29: Highland Springs/1st/Sun Lakes – this improvement will require 12 to 24 feet of additional ROW (only required in the General Plan buildout condition), affecting existing landscape, the Sun Lakes golf course (perimeter landscaping), signage and landscaped medians.

31: C/Apex/Wilson – this improvement would require approximately 12 feet of additional ROW for new eastbound and westbound through lanes, as part of Year 2042 and General Plan buildout conditions. The additional eastbound through lane would be avoided if the City accepted an LOS D threshold. Wilson Street widening, from Highland Springs Avenue to east of the Project, could affect numerous existing uses along Wilson Street, as reflected in improvement recommendations. *This improvement may not be feasible due to extensive ROW acquisition and commercial and residential property impacts, including potential substantial changes to access, frontage, parking and possible direct or indirect structure takes.*

38: Sunset/Wilson – this is a major City-wide improvement, with most of the major improvements required at General Plan buildout or Year 2042, including 24 to 36 feet of additional ROW at each intersection quadrant, as part of the overall Wilson Street widening. Uses impacted at this location include mobile homes and parking for the mobile home park, residences in the southeast quadrant that “front” onto Wilson, and vacant land along the north side of Wilson Street. *This improvement may not be feasible due to extensive ROW acquisition and commercial and residential property impacts, including potential substantial changes to access, frontage, parking and possible direct or indirect structure takes.*

39: Sunset/Ramsey – similar to #38 above, this is a major City-wide improvement, requiring approximately 12 to 24 feet of additional ROW, affecting existing commercial properties (loss of landscaping, potential loss of parking).

42: Sunrise/Wilson – similar to #38 above, this improvement is required at General Plan buildout, requiring approximately 12 feet of additional ROW for a new eastbound through lane. This may affect existing residences along the south side of Wilson, which front onto Wilson Street. *This improvement may not be feasible due to ROW acquisition and residential property impacts, including potential substantial changes to access, frontage, parking and possible direct or indirect structure takes.*

45: 8th/Ramsey – this is a major City-wide improvement required at General Plan buildout, potentially requiring an additional 12 feet of ROW at three quadrants, resulting in loss of landscaping and parking for commercial buildings, and potentially the loss of the existing commercial structure in the northeast quadrant. *Due to potential structural take and substantial parking loss, this improvement may not be feasible.*

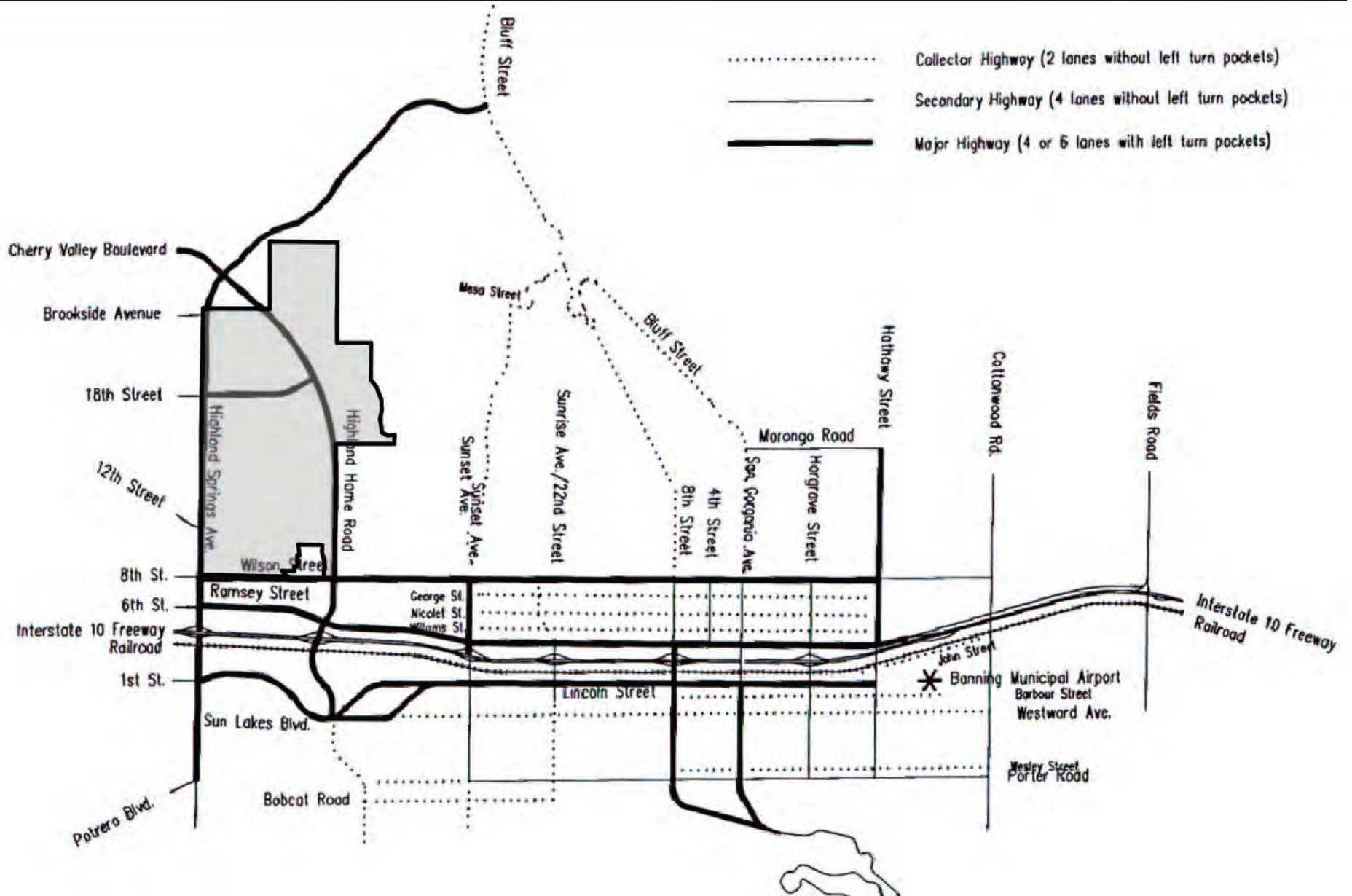
46/47: 8th/I-10 Ramps – this is a major Caltrans improvement, with portions of improvements being required beginning in Year 2032. Approximately 12 to 30 feet of additional ROW is estimated, including widening of the existing underpass, loss of landscape and trees on Caltrans and adjacent slopes, potential loss of commercial parcel landscape and/or parking, and potential railroad underpass widening.

49: San Geronio/Wilson – this improvement will require approximately 12 to 24 feet of additional ROW, widening Wilson Street in this area by approximately 36 feet. This may require loss of landscaping, and may affect residences and the existing school at this location, including modifications to access and potential affects to existing structures. *This improvement may not be feasible due to extensive ROW acquisition and commercial and residential property impacts, including potential substantial changes to access, frontage, parking and possible direct or indirect structure takes.*

4.13.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Construction of the recommended improvements, when and where needed, would achieve applicable level of service performance at all study area intersections; however, as discussed earlier, many improvements could also result in significant impacts to existing land uses (due to Project right-of-way requirements). These traffic measures would require varying levels of construction activities, which could result in air quality, noise, and traffic impacts. As these improvements are designed and implemented, appropriate construction practices intended to minimize impacts would be required. For example, the implementation of best management practices with regard to erosion, the watering of construction sites, the use of properly operating equipment, and the use of noise reduction devices would minimize environmental impacts. In addition, traffic flow during construction of the improvements would be considered by the appropriate agency.

Also, due to the speculative nature of the timing of implementation and availability of funding to implement the planned improvements listed above to less than significant levels cannot be guaranteed, and as such, remain potentially significant and unavoidable. Further, many of the recommended improvements are located in jurisdictions outside the City of Banning. Most of these improvements have been, can be and should be implemented by those other agencies, but successfully completing the improvements in a timely fashion cannot be guaranteed.



SOURCE: LSA, Traffic Impact Assessment, December 2010
(refer to Appendix I, Figure 22)



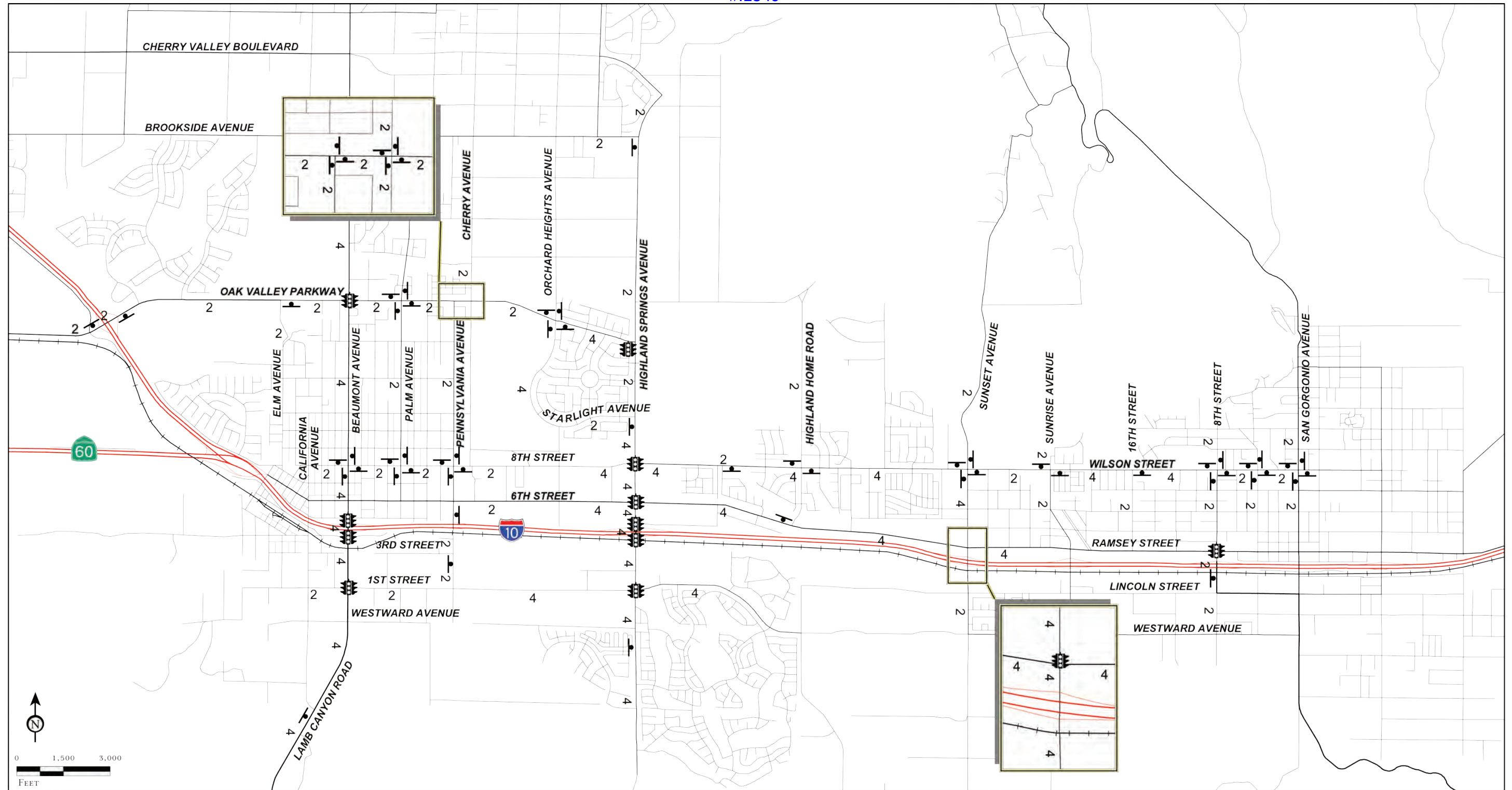
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5/27/11 JN: 65-100290

PARDEE HOMES • BUTTERFIELD SPECIFIC PLAN EIR
City of Banning General Plan Circulation Element
AR 004207

EXHIBIT 4.13-1

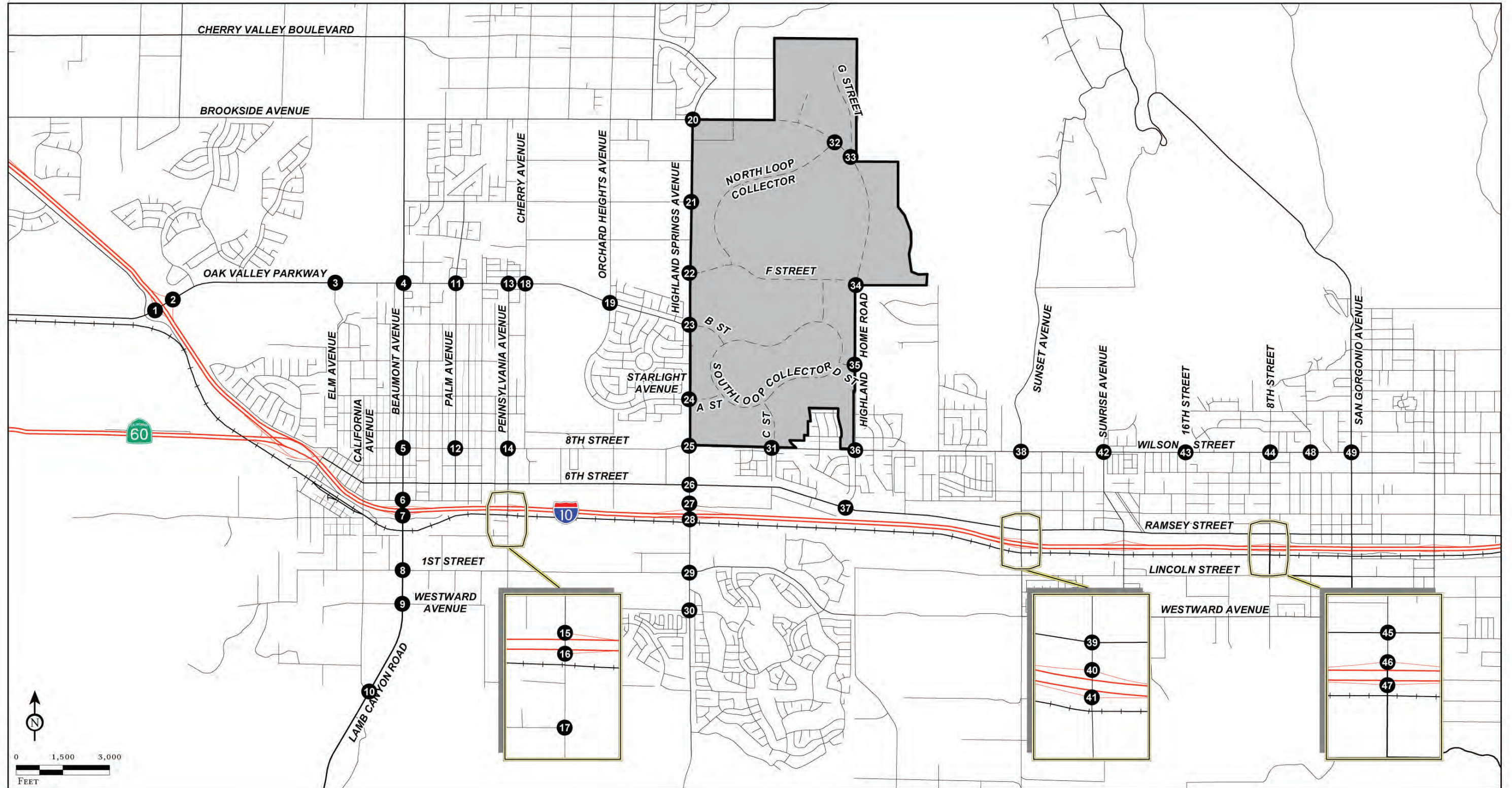
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LSA

SOURCE: LSA, Traffic Impact Assessment, December 2010
(refer to Appendix I, Figure 3)

-  SIGNAL LIGHT
-  STOP SIGN
- 2 NUMBER OF MID-BLOCK LANES



LSA

PROJECT BOUNDARY

STUDY AREA INTERSECTIONS

SOURCE: LSA, Traffic Impact Assessment, December 2010
(refer to Appendix I, Figure 4)

RBF CONSULTING

NOT TO SCALE

5/27/11 JN: 65-100290

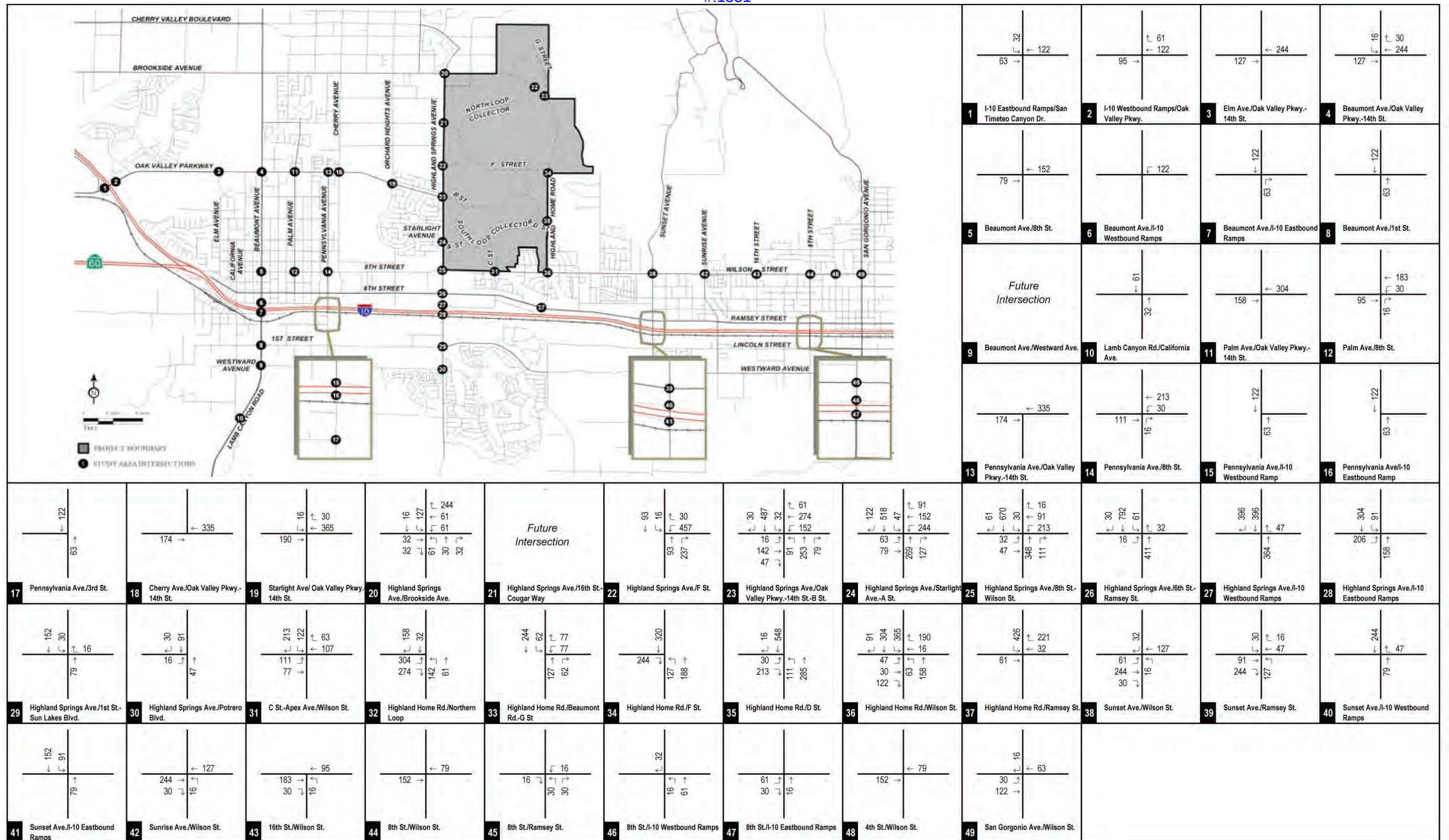
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Study Area Intersections

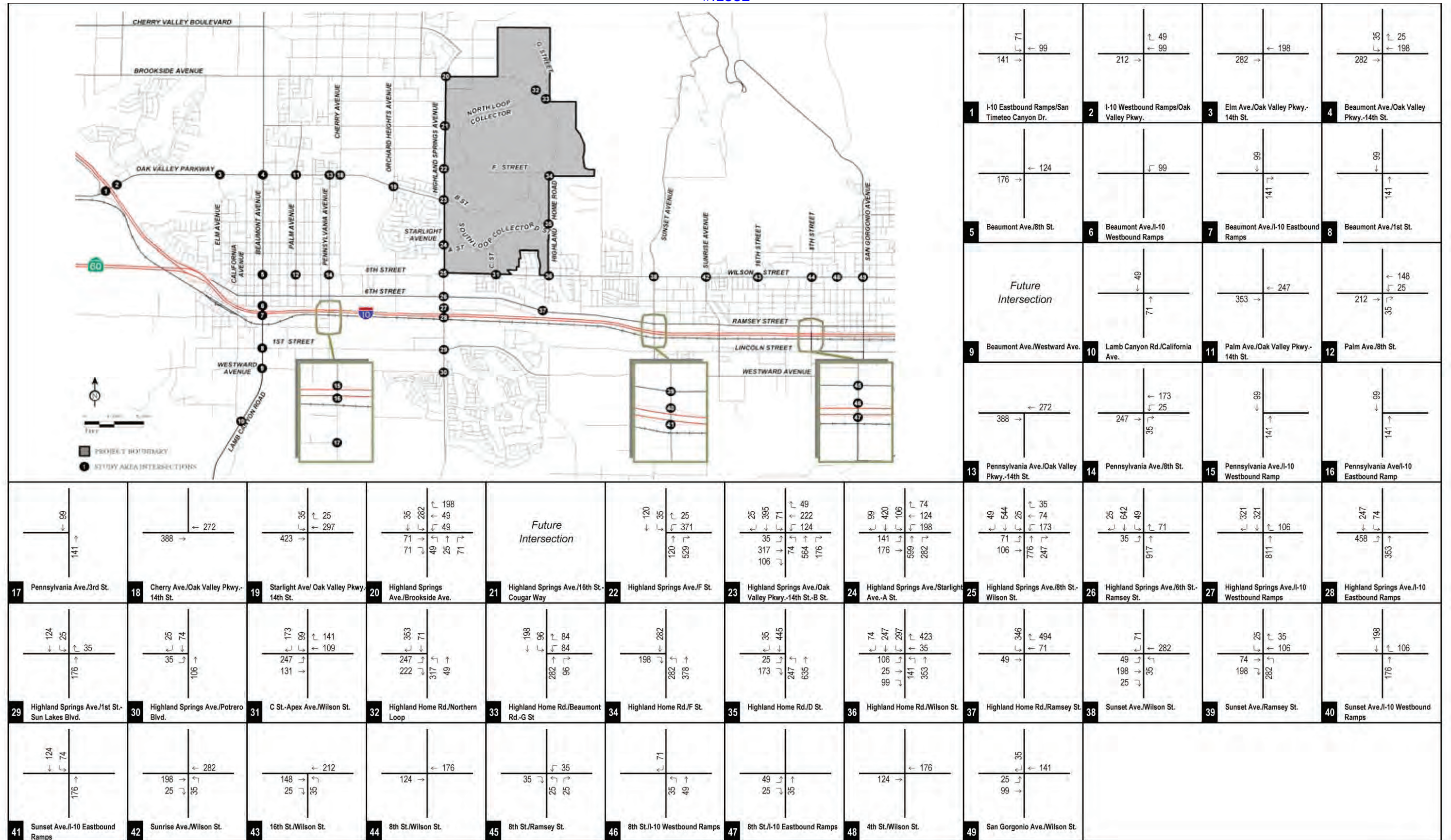
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EXHIBIT 4.13-3

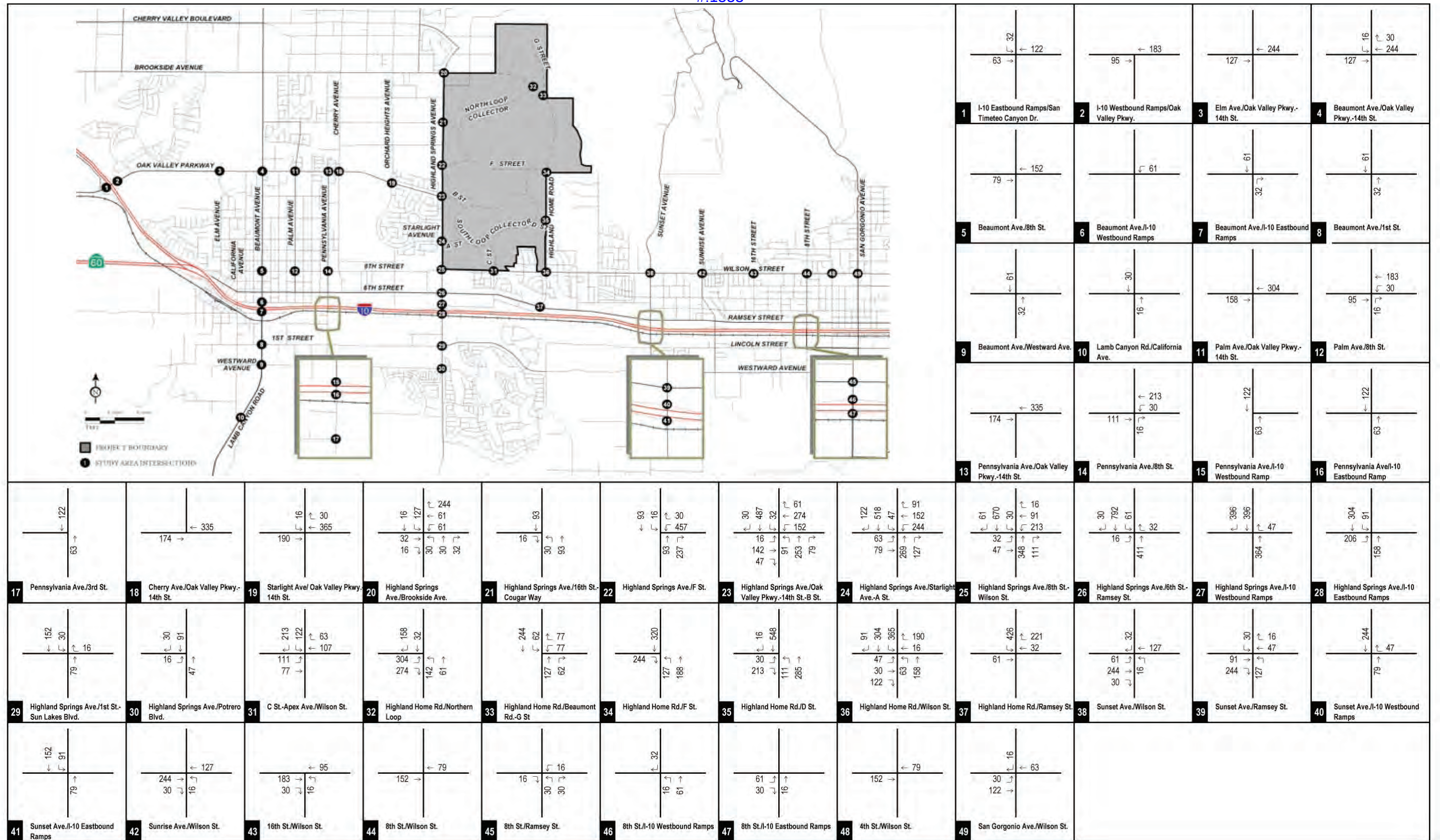
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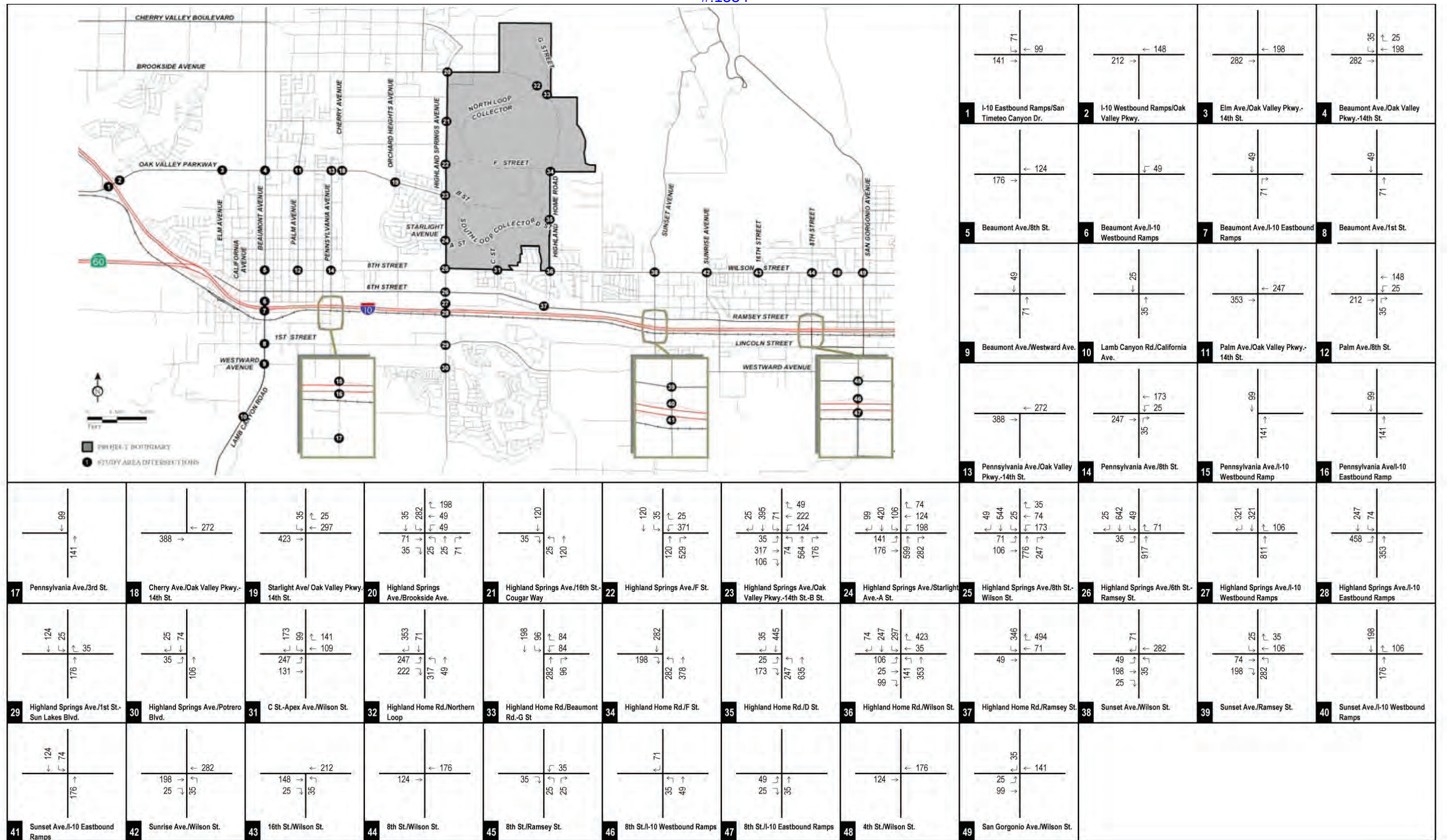
SOURCE: LSA, Traffic Impact Assessment, December 2010
(refer to Appendix I, Figure 9A)



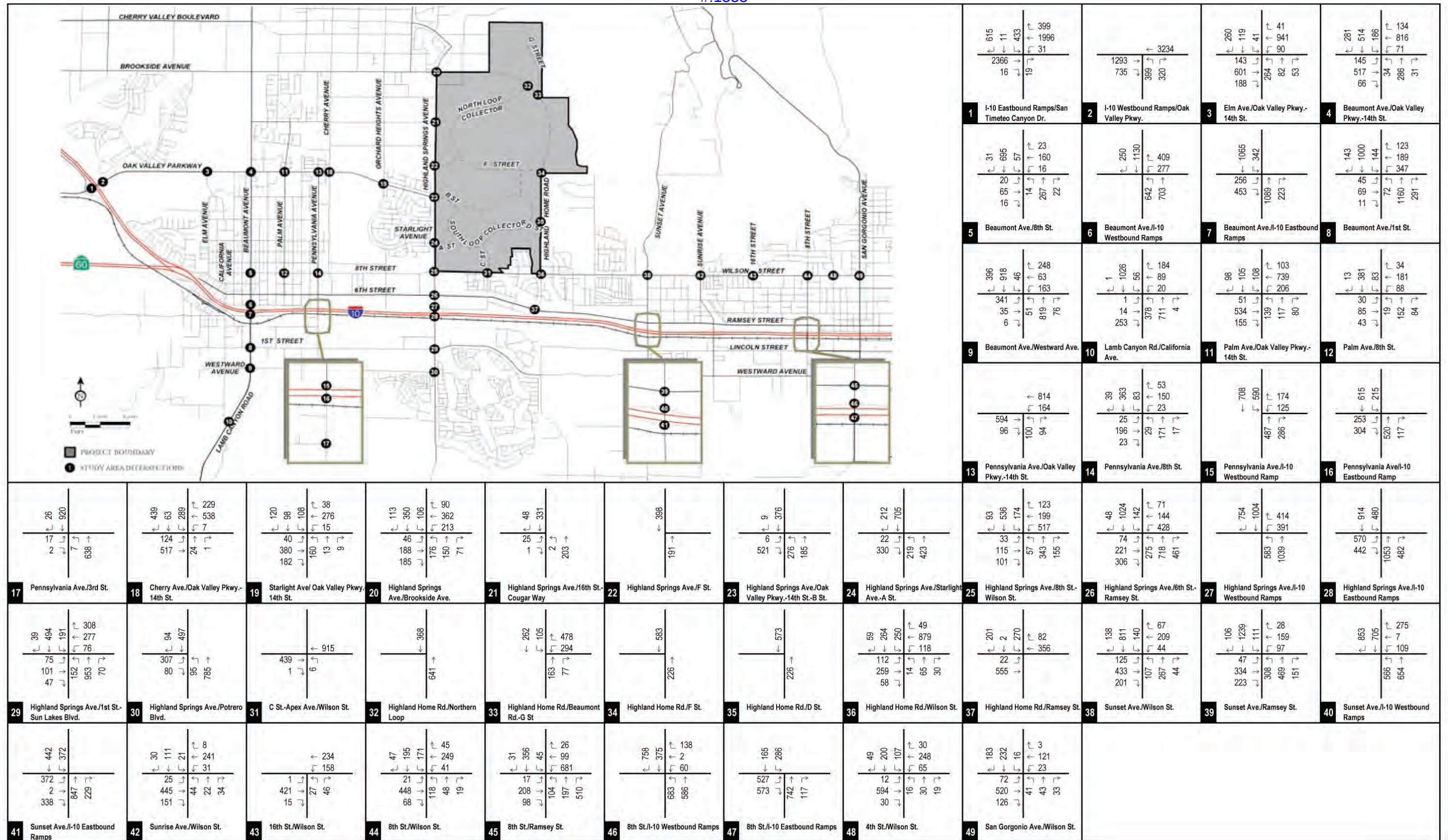
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(refer to Appendix I, Figure 9B)



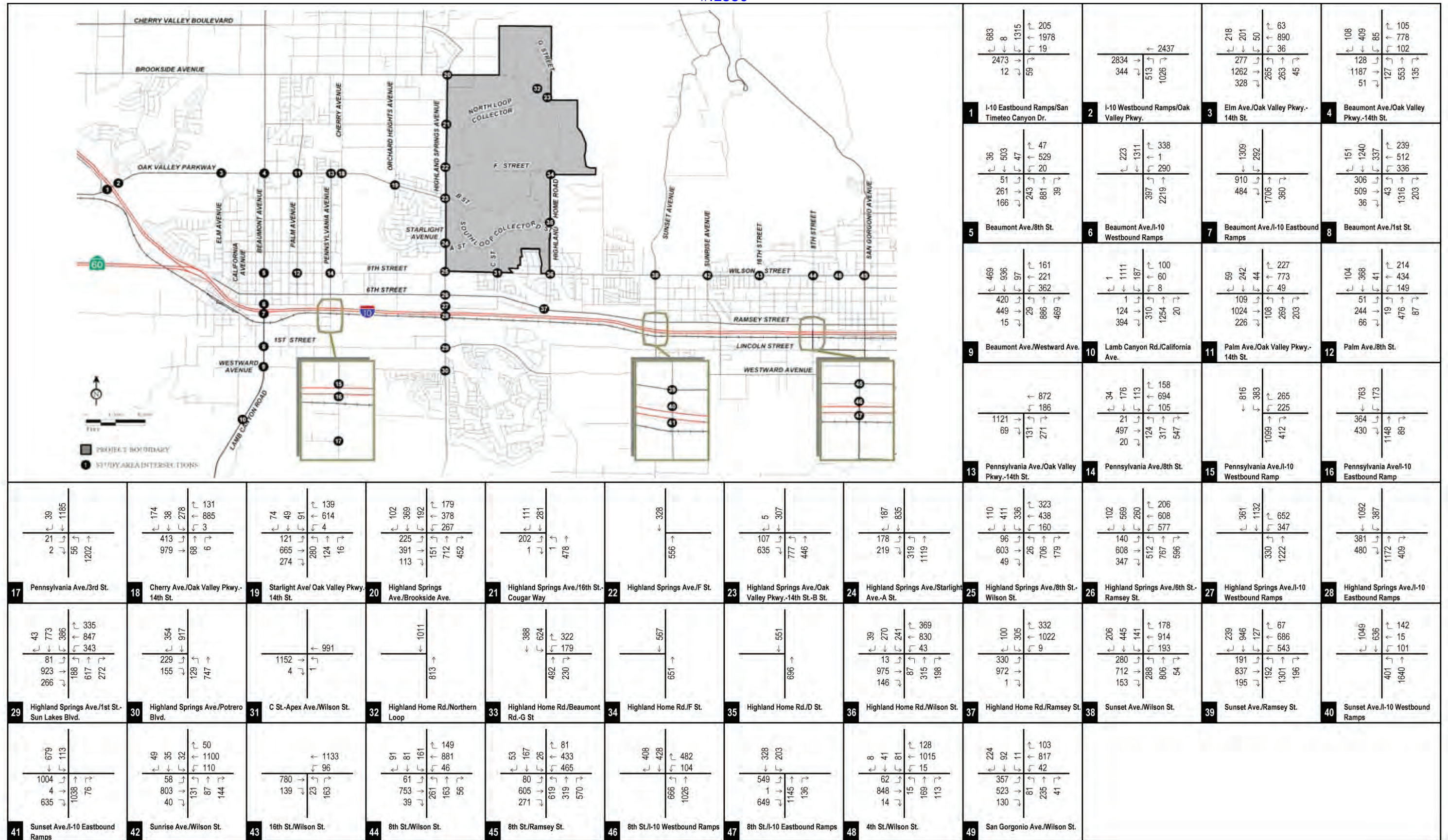
SOURCE: LSA, Traffic Impact Assessment, December 2010
(refer to Appendix I, Figure 12A)



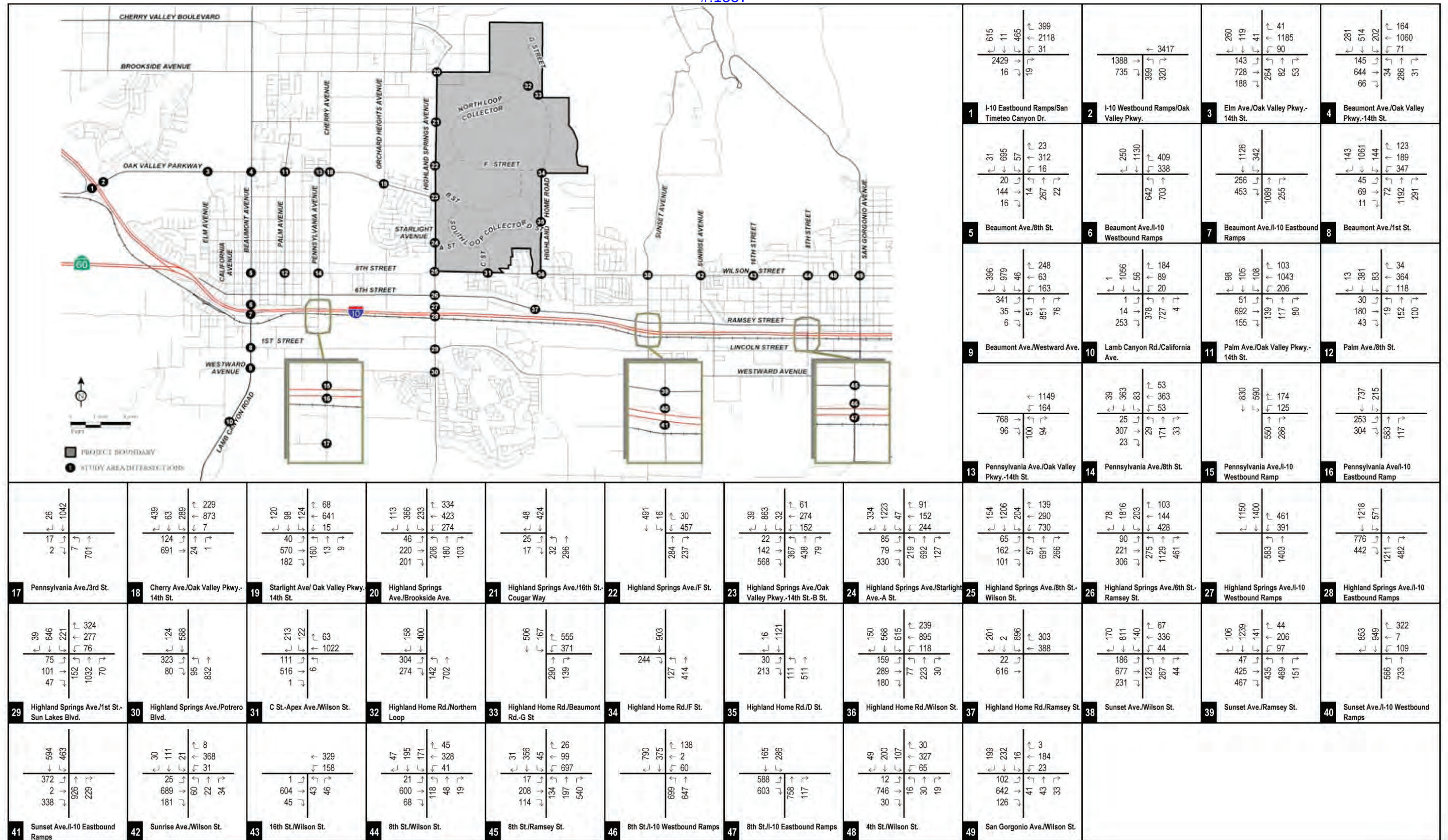
SOURCE: LSA, Traffic Impact Assessment, December 2010
(refer to Appendix I, Figure 12B)



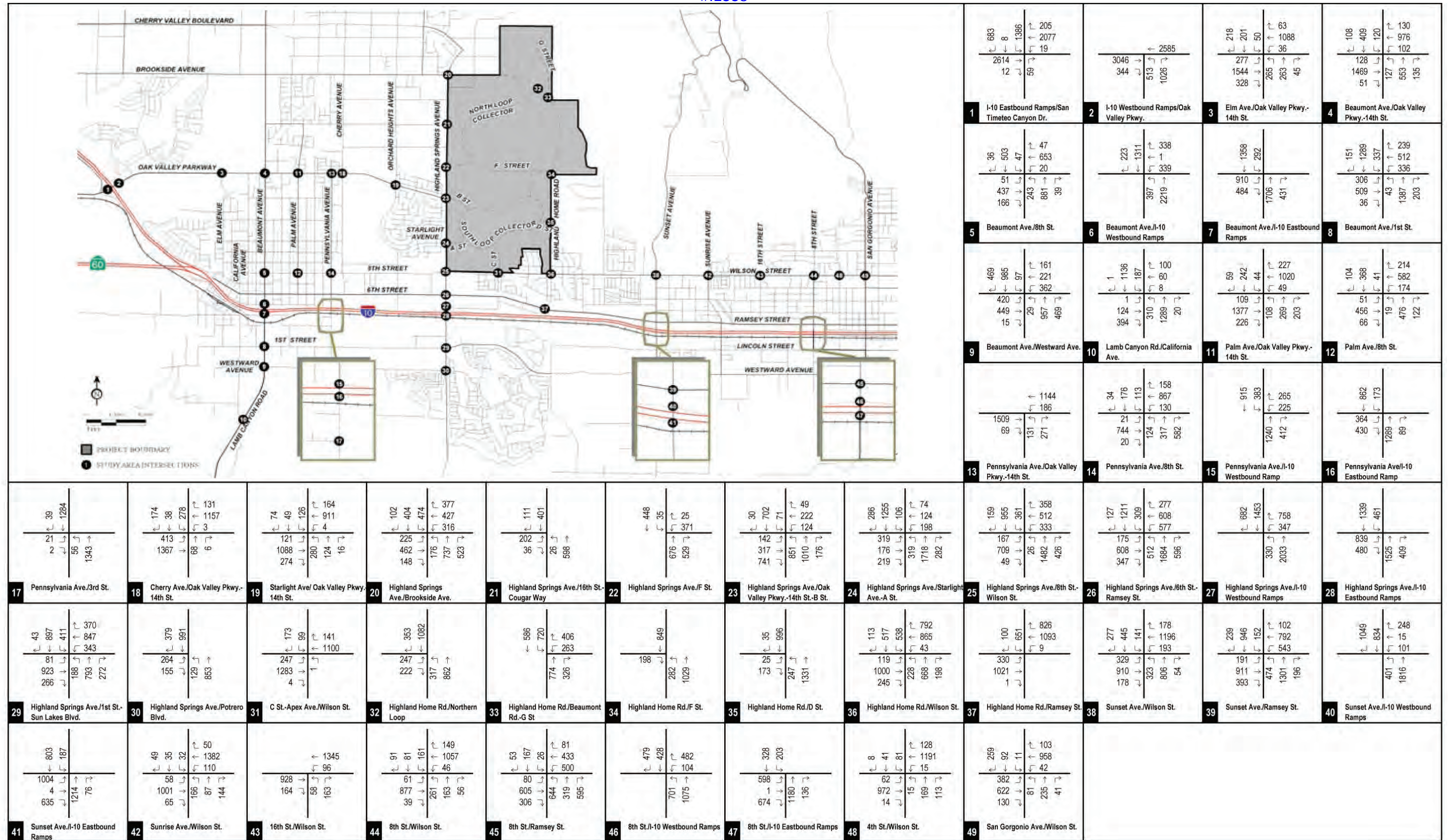
SOURCE: LSA, Traffic Impact Assessment, December 2010
(refer to Appendix I, Figure 27A)



SOURCE: LSA, Traffic Impact Assessment, December 2010
(refer to Appendix I, Figure 27B)



SOURCE: LSA, Traffic Impact Assessment, December 2010
(refer to Appendix I, Figure 28A)



SOURCE: LSA, Traffic Impact Assessment, December 2010
(refer to Appendix I, Figure 28B)

SECTION 4.14 WATER SUPPLY

4.14.1 INTRODUCTION

The purpose of this Section is to analyze potential Project-related impacts related to water supply. This section also analyzes the availability of water to serve the needs of the proposed Project as well as ongoing water supply entitlements in the vicinity of the Project site. Information presented in this section is based on the *Water Supply Assessment for Butterfield Specific Plan* (WSA) (Appendix J), the City's 2011 *Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units, and Available Water Supply from the Beaumont Basin* report prepared by Geoscience Support Services, Inc., the *City of Banning Draft 2010 Urban Water Management Plan* (UWMP)¹, and the City of Banning General Plan and the City's General Plan EIR. The thresholds of significance used in these analyses are found in Section 4.14.3 (*Significance Threshold Criteria*) and were derived from Appendix G of the CEQA Guidelines. These thresholds incorporate one topical area from Appendix G, Section VIII, *Hydrology and Water Quality* and two from Appendix G, Section XVI, *Utilities and Service Systems*.

As noted in greater detail below, water supplies are variable and subject to restrictions in accordance with water rights, water delivery contracts, and other permits. For example, since 2003, there has been a declaration of statewide drought, and curtailing of deliveries of water from the Bay-Delta area on which the City relies.

Anticipated water supply is dependent on a number of conditions, including but not limited to the following: water demand for existing development; anticipated levels of growth within the state, region, and service area of a water provider; and availability of water from existing entitlements based on drought and other variable conditions. Water supply and demand in relationship to the Project will be analyzed below based upon the WSA and the *Maximum Perennial Yield Estimates* report, along with other relevant considerations and evidence.

Numerous other investigations of the water resources in the City of Banning and San Geronio Pass area have been conducted, including the following:

- GEOSCIENCE Support Services, Inc. (1990) conducted a geohydrologic investigation and well site evaluation in the City of Banning area.
- GEOSCIENCE Support Services, Inc. (1991) prepared the results of drilling, construction, testing, and pump design for new wells for the City of Banning.
- Boyle Engineering (1996) conducted a Safe Yield Study of the Beaumont Unit.
- GEOSCIENCE Support Services, Inc. (2003) conducted a geohydrologic investigation to determine maximum perennial yield for the Banning Basins.
- City of Banning, *Urban Water Management Plan*, prepared by Wildermuth Environmental, 2005.

¹ Note: the 2010 UWMP only evaluates years 2015 through 2035; therefore, the WSA covers the full Project buildout till 2045.

- San Gorgonio Pass Water Agency, *2008 Annual Report on Water Conditions*, 2008.
- Riverside County Regional Detention Center Environmental Impact Report prepared by LSA Associates, Inc., 2009.
- GEOSCIENCE Support Services, Inc. (2009) conducted a geohydrologic investigation to update the maximum perennial yield for the East and West Banning and Banning Bench Basins.
- United States Geological Survey, *Geology, Ground-Water Hydrology, Geochemistry, and Ground-Water Simulation of the Beaumont and Banning Storage Units, San Gorgonio Pass Area, Riverside, California, Special Investigations Report (SIR) 2006-5026*, 2006.
- San Gorgonio Pass Water Agency, *2010 Report of Sustainability of the Beaumont Basin and Beaumont Management Zone*, November 2010.
- San Gorgonio Pass Water Agency, *Annual Report on Water Conditions: Reporting Period 2009*, April 2011.
- Beaumont Basin Watermaster, *Sixth Annual Report of the Beaumont Basin Watermaster*, April 2010, prepared by Wildermuth Environmental, Inc.
- Beaumont Basin Watermaster, *Second Biennial Engineer's Report 2003 – 2008*, February 2010, prepared by Wildermuth Environmental, Inc.

The *Maximum Perennial Yield Estimates* report is the most-current and comprehensive study of the Banning, Banning Bench, Banning Canyon and Cabazon Basins. The report estimates the maximum perennial yield for the Banning, Banning Bench, Banning Canyon, and Cabazon basins, projects the City's available supply from each of these basins, and concludes that the City's existing operations and projected future pumping within the estimated maximum perennial yields and projected available supplies will not cause undesirable effects on the these basins.

The *Maximum Perennial Yield Estimates* report updates GEOSCIENCE's previous 2009 geohydrologic investigation of the City of Banning area with the following: new and additional water level data, historical groundwater production information, additional well driller logs, and supplemental lithologic and hydrologic data for the area. The report also relies on the most-recent Basin boundaries, as defined by the USGS in its 2006 report and which have been accepted by the SGPWA.

Sources of data on this report included driller's logs, geophysical borehole logs, production data, water level data, weather data, pumping test data, wastewater percolation data and water quality data. These data were obtained from the City of Banning and other public agencies. Production data for the Cabazon Basin was obtained from San Gorgonio Pass Water Agency, *Annual Report on Water Conditions: Reporting Period 2009*. The pumping data for the Morongo Tribe was obtained from the Water Supply Assessment conducted for the Riverside County Regional Detention Center prepared by LSA Associates Inc., 2009. It should be noted that the

Morongo Indian Tribe which pumps water from the Cabazon Basin does not report annual pumping volumes.

A complete discussion of Global Climate Change as it relates to water resources is provided in Section 4.5 of this EIR.

4.14.2 EXISTING CONDITIONS

4.14.2.1 ENVIRONMENTAL SETTING

The City of Banning's Water and Wastewater Department provides potable water to approximately 11,000 service connections serving a population of approximately 29,603 persons. The Department's service area covers approximately 23 square miles and incorporates most of the City of Banning with the exception of a small area of north Banning. The Project's development area is within the Department's service area. The City's Wastewater Treatment Plant (WWTP) currently treats water to a secondary standard; however, expansion of the plant to add 1.5 mgd of capacity and provide the means to treat water to a tertiary standard will allow the City to offer recycled water for landscape irrigation once pipeline infrastructure is in place.

Sources of Water

Currently, the City's public water system relies on local groundwater supplies and imported water from the State Water Project through the San Geronio Pass Water Agency (Pass Agency) to meet water demand. The City also relies on surface water and treated wastewater supplies to recharge local groundwater basins. Other potential sources include recycled water made available following completion of the City's WWTP expansion, currently underway, and return flows from irrigation with both recycled and potable water supplies.

GROUNDWATER SUPPLIES

Currently, approximately 87 percent² of the City's water supply comes from existing groundwater pumped through 24 active wells that draw water from 5 local groundwater basins listed in Table 4.14.-1, *Summary of City of Banning Active Production Wells (May 2010)*: (1) Beaumont, (2) Banning, (3) Banning Bench, (4) Banning Canyon, and (5) Cabazon. An additional five wells are available but not equipped and one well has been abandoned. Refer to Exhibit 4.14-1, *City of Banning Groundwater Basins*, and Section 4.9.2.1, *Hydrology and Water Quality – Existing Setting*, for a detailed description of regional groundwater hydrology and basin location, size and status. The City operates two additional wells used to recharge excess

² Draft 2010 UWMP, Table 4-1, *Current and Projected Water Supplies for the City of Banning*.

pumped groundwater back into the Banning Canyon Basin.³ Refer to Exhibit 4.14-2, *City of Banning Well Locations*.

Table 4.14-1
Summary of City of Banning Active Production Wells (May 2010)

Basin	Number of Active Wells
Beaumont	8
Banning	4
Banning Bench	3
Banning Canyon	8
Cabazon	1
TOTAL	24

Source: Geoscience Maximum Perennial Yields Report 2011

Notes: a. City of Banning co-owned production Wells 24, 25, and 26, including in this total, extract groundwater from the Beaumont Basin.

Historically, the City of Banning has been able to meet the water demand of its customers with available groundwater supplies; however, with additional population growth, demand has increased to the level where production limitations are being realized in certain portions of the City during dry years. Declining water levels have been detected in the Beaumont Basin, Banning Canyon, and Banning Bench since 1995. The *Maximum Perennial Yield Estimates* report was commissioned to support the City's 2010 UWMP update and to provide a foundation for management of these key water resources. The report, and underlying hydrogeologic study, determines the long-term average amount of groundwater that can be extracted by the City from the Banning area basins without causing gradual reduction of natural groundwater in storage over long-term hydrologic cycles and adverse impacts to groundwater quality.

Beaumont Basin

The Beaumont Basin is an adjudicated basin which quantifies pumping rights among various agencies, including the City of Banning, and provides for the use of available storage capacity. The allocation of water from the Beaumont Basin is the responsibility of Watermaster and the use of groundwater and available storage space in the Beaumont Basin is subject to the terms of a court adjudication referred to as the Beaumont Basin Judgment.⁴ The City's Beaumont Basin production right for the years 2015–2045, not including water available for pumping from the City's stored water account (described below) — i.e., the City's minimum production right is presented in Table 4.14-2.

³ Draft 2010 UWMP, Section 4.2.2.

⁴ <http://beaumontbasinwatermaster.org> (accessed December 23, 2010).

Table 4.14-2
City's Beaumont Basin Production Right (2011 to 2045)
(Not Including Stored Water Account) (AFY)

Year	2011	2012	2013	2014	2015	2020	2025	2030	2035	2040	2045
Estimated Safe Yield ⁵ of Basin	8,650	8,650	8,650	8,650	8,650	8,650	8,650	8,650	8,650	8,650	8,650
City's Allocation (31.43%) of Operating Yield	5,029	5,029	5,029	0	0	0	0	0	0	0	0
[+] Appropriative Right (31.43%) of Safe Yield Remaining after Satisfaction of Overlying Water Rights Production ⁶	1,645	1,659	1,618	1,830	1,805	1,635	1,478	1,328	1,194	1,178	1,162
[=] Estimated Minimum Beaumont Basin Production Right (without Project)	6,674	6,688	6,647	6,859	1,805	1,635	1,478	1,328	1,194	1,178	1,162

Source: *Water Supply Assessment* (Appendix J), Table 6.1.5.9.4B.

Unadjudicated Groundwater Supplies (Banning, Banning Bench, Banning Canyon, and Cabazon Basins)

Groundwater rights in the Banning, Banning Bench, Banning Canyon and Cabazon Basins have not been adjudicated, and no groundwater management plan has been adopted by any agency with proper authority. Thus, these four Basins are currently unregulated.

According to the 2011 Geoscience *Maximum Perennial Yield Estimates* report, the Cabazon Basin has a maximum perennial yield of 5,265 AFY, a portion of which may be produced by the City, on average, without causing undesirable results on the basin. The safe yield for the Banning, Banning Bench, and Banning Canyon Basins are 1,130 AFY, 1,960 AFY, and 4,070 AFY, respectively. Estimates of maximum perennial yield for the three Banning Basins and the Cabazon basin are described in detail in Chapter 7 of the 2011 Geoscience Report, and presented below in Table 4.14-3.

⁵ "Safe yield" is a water management construct that describes the sustainable supply of a groundwater basin and is defined herein as the amount of water that can be withdrawn from a groundwater basin annually without producing an undesirable result.

⁶ Watermaster's most-recent projections (on file with the City) are available through 2040 only. Although the percentage of decrease in the City's Appropriative Right is projected to get smaller over time, for purposes of this EIR, the City conservatively assumes that the City's right will continue to decrease by an additional 1.34% by 2040, the same percentage of decrease as the Watermaster projects between 2039 and 2040.

Table 4.14-3
Maximum Perennial Yield of Banning Basins and Cabazon Basin (AFY)

Basin	Maximum Perennial Yield	City's Projected Supply
Banning	1,130	1,130
Banning Bench	1,960	1,960
Banning Canyon	4,070	4,070
Subtotal (Banning Basins combined)	7,160	7,160
Cabazon	5,265	2,515
Total	12,425	9,675

Source: *Water Supply Assessment* (Appendix J), Table 6.1.6.4.

Table 4.14-4 presents the City's projected available supply from the Banning, Banning Bench, and Banning Canyon for all water year types.

Table 4.14-4
City's Projected Banning Basin Supplies (2015-2045) (All Year Types) (AFY)

Basin	Average ("Normal") Years (based on Maximum Perennial Yield)	Single Dry Years	Multiple Dry Years
Banning	1,130	1,103	843
Banning Bench	1,960	733	598
Banning Canyon	4,070	4,070	4,070
Total	7,160	5,906	5,511

Source: *Water Supply Assessment* (Appendix J), Table 6.1.6.7.

Table 4.14-5 presents the City's projected available supply from the Cabazon Basin for all water year types for the study period. Pumping from the Cabazon Basin is not affected by water year type. However, the City's projected available supply from the Cabazon Basin is anticipated to change over time. This is because the City's recharge of treated wastewater to the basin—an important element of the basin's hydrologic balance—will fluctuate over time as a result of the City's development of recycled water. By 2015, the City will complete the first phase of an upgrade to its main Wastewater Treatment Plant. This project will allow the City to provide tertiary treatment to a portion of the wastewater flows generated within the City, thereby allowing those tertiary treated supplies to be delivered directly to serve non-potable demands. As a result, the quantity of wastewater flows available for recharge into the Cabazon Basin will change over time.

Table 4.14-5
City's Projected Cabazon Basin Supply (2015-2045) (All Year Types) (AFY)

Year	2015	2020	2025	2030	2035	2040	2045
Cabazon	1,185	1,405	1,648	1,916	2,212	2,538	2,899

Source: *Water Supply Assessment* (Appendix J), Table 6.1.6.8.

BEAUMONT BASIN STORED WATER ACCOUNT

Pursuant to the Beaumont Basin Judgment and an agreement with the Watermaster, the City has the right to store up to 80,000 AF of water in the Beaumont Basin for later use. The City is authorized to bank new yield (e.g., imported water, storm runoff, surplus spring flows, or reclaimed water) in the aquifer. New yield is defined as “proven increases in quantities greater than the historical level of contribution from certain recharge sources.”⁷ This allows the withdrawal of the stored supply from the aquifer to meet future demand.

The safe yield value for the Beaumont Basin was estimated in the 2004 Judgment to be 8,650 acre-feet per year (AFY). For the period 2004-2013, the City's adjudicated right is 5,910 AFY. However, since the adjudication in 2004, the City has only produced 2,514 AFY on average; water not produced from the Basin remains in storage to be used in the future when needed.

The City's imported water supply is also stored in the Beaumont Basin. To augment the City's groundwater storage, the City conjunctively manages imported surface water supplies with local groundwater supplies which in turn increase the City's overall water supply reliability. The City's ability to store imported water supplies, when available, for use in later years allows the City to maximize its beneficial use of the Beaumont Basin by carrying over unneeded supplies for later use.

In most years, given anticipated future City pumping to meet projected demands, the City will be able to store and “bank” the majority of the imported water it purchases from the State Water Project (SWP). The City's stored imported water supplies are maintained in the City's Beaumont Basin stored water account. The City's stored water account balances will be drawn upon, and thus reduced, only when needed (i.e., only in the case of insufficient supplies).

To date, the City has already accumulated approximately 25,000 AF in storage. The City's projected quantity of water in storage at any time is expressed as the following equation:

⁷ Watermaster Rules and Regulations, Rule 4.2(a).

Water in storage = Beginning stored water account balance + [Beaumont Basin production right + imported water] – City's Beaumont Basin pumping

Table 4.14-6 presents the City's projected account balances for its Beaumont Basin stored water account for the 2015-2045 period. The City's projections are based on the following assumptions: (1) the City, beginning in 2015, will purchase 2,595 AFY, on average, of imported water (refer to detailed discussion in the *Water Supply Assessment*, Appendix J, Section 6.3.6.2) and store that supply in the City's approved stored water account; and (2) the City will continue to pump groundwater from the Beaumont Basin for the study period at a rate equal to its historical average annual pumping from the basin (2,514 AFY).

Table 4.14-6
City's Beaumont Basin Stored Water Account Balances (2011-2045) (AFY)

Year	2011	2012	2013	2014	2015	2020	2025	2030	2035	2040	2045
Beginning Account Balance	<u>24,640</u>	<u>30,112</u>	<u>35,543</u>	<u>41,186</u>	<u>41,775</u>	<u>51,205</u>	<u>59,565</u>	<u>67,138</u>	<u>73,963</u>	<u>80,338</u>	<u>86,633</u>
[+] Beaumont Basin Minimum Production Right (without Project)	<u>6,688</u>	<u>6,647</u>	<u>6,859</u>	<u>1,805</u>	<u>1,805</u>	<u>1,635</u>	<u>1,478</u>	<u>1,328</u>	<u>1,194</u>	<u>1,178</u>	<u>1,162</u>
[+] Purchased Imported Water Delivered to Beaumont Basin	<u>1,298</u>	<u>1,298</u>	<u>1,298</u>	<u>1,298⁸</u>	<u>2,595</u>	<u>2,595</u>	<u>2,595</u>	<u>2,595</u>	<u>2,595</u>	<u>2,595</u>	<u>2,595</u>
[-] Projected Average Annual Pumping from the Beaumont Basin	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>
[=] Ending Account Balance	<u>30,112</u>	<u>35,543</u>	<u>41,186</u>	<u>41,775</u>	<u>43,661</u>	<u>52,921</u>	<u>61,124</u>	<u>68,547</u>	<u>75,238</u>	<u>81,597</u>	<u>87,876</u>

Source: *Water Supply Assessment* (Appendix J), Table 6.1.5.10B.

IMPORTED

In addition to groundwater, the City purchases imported SWP water from the Pass Agency. The Pass Agency imports water directly from the SWP and is authorized to distribute this water to retailers, such as the City of Banning, within its boundaries. The SWP contract contains a Table "A" amount of 17,300 AFY, which is the maximum annual delivery amount over the period of the contract. In 2006, Pass Agency's allocation of SWP water was 100 percent of its Table "A" allocation. The Pass Agency's allocation was 60 percent in 2007, 35 percent in 2008, 40 percent in 2009, and 50 percent 2010.⁹ It is anticipated that up to 25 percent of the Pass

⁸ The City's projected stored water account balances in Table 4.14-6 differ slightly from those presented in the 2011 Geoscience Report, at p. 42, as a result of the fact that the Project WSA assumes that EBXII will not be completed until the end of 2014 and therefore the City will not be able to increase imported water purchases to 2,595 AFY, on average, until 2015. The 2011 Geoscience Report assumes increased imported water purchases will begin in 2014.

⁹ DWR, Notice to State Water Project Contractors, Number 09-07 (May 20, 2009) [40% for 2009]; DWR, Notice to State Water Project Contractors, Number 10-11 (June 22, 2010) [50% for 2010].

Agency's Table "A" entitlement will be available for purchase by the City. For discussion of the long-term reliability of the City's imported water supply, refer to Section 6.2.7 of the WSA. The City takes delivery of its imported water supply via the Noble Creek Recharge Facility where the supply is percolated into the Beaumont Basin, stored in the City's Beaumont Basin stored water account, and then later extracted by the City through existing wells.

RECYCLED

Currently, the City has no recycled water; all non-potable demands are served with potable water supplies.

SUMMARY OF WATER SUPPLY

As described above, existing supplies for the City of Banning include groundwater from the Banning, Banning Bench, Banning Canyon, Cabazon, and Beaumont Basins. In addition, the City's water portfolio includes supplies accumulated in its Beaumont Basin storage account, including unused Beaumont Basin production rights and SWP imported water. The City also has the right to surface waters that augment the yield of the Banning Canyon Basin.

All projected groundwater supplies, in all year types, are within the safe yields of all basins, either as calculated by the 2011 Geoscience *Maximum Perennial Yield Estimates* report in the case of the Banning and Cabazon basins, or by the Watermaster in the Beaumont Basin, and are supported by the City's water rights in each of the respective basins. Tables 4.14-7 through 4.14-9 summarize anticipated fluctuations in the availability of each of the City's supplies under varying hydrologic conditions – i.e., in normal, single dry, and multiple dry water years.

(DWR, Notice to State Water Project Contractors, Number 09-07 (May 20, 2009) [40% for 2009]; DWR, Notice to State Water Project Contractors, Number 10-11 (June 22, 2010) [50% for 2010].)

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4.14 WATER SUPPLY

Table 4.14-7
Total Projected City Water Supplies (Average Year) (AFY)

Supply Source	2015	2020	2025	2030	2035	2040	2045
Beaumont Basin (Stored Water Account Balance) ¹⁰	43,661	52,921	61,124	68,547	75,238	81,597	87,876
Banning Basin	1,130	1,130	1,130	1,130	1,130	1,130	1,130
Banning Bench Basin	1,960	1,960	1,960	1,960	1,960	1,960	1,960
Banning Canyon Basin	4,070	4,070	4,070	4,070	4,070	4,070	4,070
Cabazon Basin	1,185	1,405	1,648	1,916	2,212	2,538	2,899
Recycled Water (Phase I Upgrade only)	1,680	1,680	1,680	1,680	1,680	1,680	1,680
Total Supplies	53,686	63,166	71,612	79,303	86,290	92,975	99,615

Source: *Water Supply Assessment* (Appendix J), Table 6.7A.**Table 4.14-8**
Total Projected City Water Supplies (Single Dry Year) (AFY)

Supply Source	2015	2020	2025	2030	2035	2040	2045
Beaumont Basin (Stored Water Account Balance)	43,661	52,921	61,124	68,547	75,238	81,597	87,876
Banning Basin	1,103	1,103	1,103	1,103	1,103	1,103	1,103
Banning Bench Basin	733	733	733	733	733	733	733
Banning Canyon Basin	4,070	4,070	4,070	4,070	4,070	4,070	4,070
Cabazon Basin	1,185	1,405	1,648	1,916	2,212	2,538	2,899
Recycled Water (Phase I Upgrade only)	1,680	1,680	1,680	1,680	1,680	1,680	1,680
Total Supplies	52,432	61,912	70,358	78,049	85,036	91,721	98,361

Source: *Water Supply Assessment* (Appendix J), Table 6.7B.

¹⁰ Includes City's projected annual Production Right pursuant to Beaumont Basin Judgment and projected State Water Project, Table "A" imported water in storage – i.e., not produced to serve demand in prior years. Does not include stormwater flows from the Project proposed to be recharged into the Beaumont Basin pursuant to the Beaumont Basin Judgment.

Table 4.14-9
Total Projected City Water Supplies (Multiple Dry Year) (AFY)

Supply Source	2015	2020	2025	2030	2035	2040	2045
Beaumont Basin (Stored Water Account Balance)	43,661	52,921	61,124	68,547	75,238	81,597	87,876
Banning Basin	843	843	843	843	843	843	843
Banning Bench Basin	598	598	598	598	598	598	598
Banning Canyon Basin	4,070	4,070	4,070	4,070	4,070	4,070	4,070
Cabazon Basin	1,185	1,405	1,648	1,916	2,212	2,538	2,899
Recycled Water (Phase I Upgrade only)	1,680	1,680	1,680	1,680	1,680	1,680	1,680
Total Supplies	52,037	61,517	69,963	77,654	84,641	91,326	97,966

Source: *Water Supply Assessment* (Appendix J), Table 6.7C.

Projected Water Demand – Draft 2010 Urban Water Management Plan

The Draft 2010 UWMP addresses past and current water use in the City. In 1990, the demand on the City's water supply was approximately 4,096 acre-feet. By 2000, the demand almost doubled to 8,031 acre-feet, even though population growth was not significant. The large increase in water demand in relation to population growth during that period was due in large part to increased commercial consumption and irrigation. Future water demand is projected based on expected development in the region. The Draft 2010 UWMP determines future water demand using the water use factors reported in the *City of Banning Water System Hydraulic Modeling Report* (Montgomery Watson Harza 2002). The 2010 demand projections assume that the greatest percent increase in demand will come from new development in the residential and irrigation sectors. Approximately 75 percent of overall water demand is anticipated to come from residential land uses in year 2035.

Citywide Water – Demand and Supply Analysis

Table 4.14-10 summarize the City's assessment of the availability of the City's water supplies during all water year types to meet the water demands for the City's existing and planned future uses. The data assumes an average annual population increase of approximately 2 percent after the year 2010 based on average growth rate projections contained in the City of Banning 2008 Draft Housing Element Update for the years 2008-2014. Residential household units were based on population projection from 2010 forward and an occupancy factor of 2.7 persons per dwelling unit pursuant to the City's 2008 Draft Housing Element Update and the State Department of Finance.

Table 4.14-10
Comparison of Total City Water Supplies (AF) and Net Demand

	2015	2020	2025	2030	2035	2040	2045
Without Project							
Average Year							
Total Supplies	53,686	63,166	71,612	79,303	86,290	92,975	99,615
Total Demands (City Net Demand – Project Net Demand)	9,234	8,596	9,335	10,174	11,072	12,163	13,607
Difference	44,452	54,570	62,277	69,129	75,218	80,812	86,008
Single Dry Year							
Total Supplies	52,432	61,912	70,358	78,049	85,036	91,721	98,361
Total Demands (City Net Demand – Project Net Demand)	9,234	8,596	9,335	10,174	11,072	12,163	13,607
Difference	43,198	53,316	61,023	67,875	73,964	79,558	84,754
Multiple Dry Year							
Total Supplies	52,037	61,517	69,963	77,654	84,641	91,326	97,966
Total Demands (City Net Demand – Project Net Demand)	9,234	8,596	9,335	10,174	11,072	12,163	13,607
Difference	42,056	51,729	59,115	65,636	71,331	76,586	81,651

Source: *Water Supply Assessment* (Appendix J), Table 7A, 7B, and 7C

Residential water demand was calculated based on average water use/demand factor of 0.52 AFY and an average annual system loss of 7.8 percent. The average annual water demand was calculated by taking the average residential water use demand per dwelling unit for 2005 to 2010 multiplied by the average system losses for the same period. Demand projections include all new demands ranging from an individual single-family home to large-scale developments. Future demand also includes proposed developments that have a reserved (or entitlement to) future water supply and are considered to be moving toward construction. Taken into account are also projects proposed under Specific Plans (if the City has determined that they are likely to begin construction during the analysis period).

The City's landscape standards, adopted January 2006 (Ch 17.32 of the Municipal Code) require water use reductions of 25 percent for outdoor (landscape irrigation) water use. In addition, the 2010 California Green Building Code requires new residences to install weather or soil moisture irrigation controllers starting in 2011, which will reduce outdoor water use for new residences by 13 percent. Additional outdoor water use reductions are also assumed based on current standards. Accordingly, water demand projections assume that outdoor water use would be approximately 50 percent of residential uses as per the Draft 2010 UWMP. In addition, the

California Green Building Code will take effect in 2011 and will mandate additional potable water use reductions within buildings of approximately 20 percent. Moreover, all new residences are subject to the State's plumbing code requirements enacted in 1992, which require efficient plumbing fixtures in all new construction (such as low-flow shower heads and faucets and low-flush toilets) and the City's existing indoor water use regulations. These mandated reductions in demand are applied as a "water efficiency" factor in calculating future demand.

The total amount of water available to the City from the Beaumont Basin is declared in the 2004 stipulated judgment, as further described in subsequent reports of the Beaumont Basin Watermaster. The total amount of water available for the City from the aggregate unadjudicated Basins (Banning, Banning Bench, Banning Canyon, and Cabazon Basins) is per the 2011 Geoscience *Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units, and Available Water Supply from the Beaumont Basin* report. It is also assumed that the City will continue to purchase SWP water from the Pass Agency and to store that water in the City's approved stored water account in the Beaumont Basin. The estimated total water demand (without the Project) for the City of Banning is expected to increase from 9,234 AFY in 2015 to 13,607 AFY in 2045. The supply of water to the City of Banning from all sources (including the Beaumont Basin stored water account) is expected to grow from 53,686 acre-feet per year in 2015 to 99,615 acre-feet per year (without Project) in 2045 due to projected increased pumping of the Cabazon Basin and the increase in recycled water from the City's Phase I Upgrade of its Main Treatment Plant. Given the City's projections for City-wide demand, the City will be able to store and bank the majority of the imported water supplies it purchases, which would be maintained in the City's Beaumont Basin stored water account until needed. The City's stored water account balances would be drawn upon, and thus reduced, only when needed. Based on the analysis above, the City will have water supplies available during normal, single dry and multiple dry years during a 35-year projection to meet the City's existing and planned future uses.

For detailed supply analysis in single dry years and multiple dry years with and without SWP water allocations refer to the WSA (2011) contained in Appendix J.

4.14.2.2 REGULATORY FRAMEWORK

State Senate Bills 901 and 610

Senate Bills 901 (1995) and 610 (2001) established the primary legal standards for assessing the sufficiency of water supplies for new development projects.¹¹ Affected land developments are those that meet certain size thresholds. Those thresholds are met for developments that include more than 500 residential dwelling units, or industrial, manufacturing or processing plants, or

¹¹ See Cal. Water Code §§ 10910-10914.

an industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.¹²

These statutes require that as part of the environmental review conducted for a qualifying project pursuant to the California Environmental Quality Act ("CEQA"), the relevant public water supplier must prepare a "water supply assessment" or "WSA" of the reliability of water supplies, considering normal, single dry and multiple dry years, analyzed over a 20-year horizon.

If a project's water supply includes groundwater, the WSA must include the following information:

- (1) A review of any information contained in the Urban Water Management Plan relevant to the identified water supply.
- (2) A description of any groundwater basin or basins from which the proposed project will be supplied.
- (3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from any groundwater basin from which the proposed project will be supplied.
- (4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system from any basin from which the proposed project will be supplied.
- (5) An analysis of the sufficiency of the groundwater from the basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project.¹³

Upon the water provider's adoption of the WSA, the WSA must be forwarded to the lead agency and incorporated into the CEQA document being prepared for the project and the lead agency must determine, based on the entire record, whether projected water supplies will be sufficient to satisfy demands for the project, in addition to existing and future uses.¹⁴

¹² Cal. Water Code § 10912(a).

¹³ Cal. Water Code § 10910(f).

¹⁴ Cal. Water Code § 10911(b)-(c).

According to Senate Bill 610, a project's public water supplier must prepare and approve a "water supply assessment" that contains the three parts described below (if SB 610's minimum threshold for water demand is triggered):

1. Explicit identification of existing and anticipated water supply entitlements, water rights and water service contracts, demonstrated by contracts, Capital Improvement Plans and applicable permits.
2. If no water has been received by the source identified to supply the development, other competing purveyors that receive from the new source must be identified.
3. If groundwater is a proposed supply, factors such as adjudicated rights, groundwater management practices and historical pumping must be presented to establish proper use of the resource.

In compliance with SB 610, the City prepared a WSA as the public water supplier for the Specific Plan project, regarding the availability of water for the Specific Plan area pursuant to Water Code section 10910 et seq.

California Administrative Code

Title 24 of the California Administrative Code includes the California Building Standards, which in turn includes the California Plumbing Code (Part 5), which promotes water and water-related energy conservation. Section 25352 addresses pipe insulation requirements that reduce the amount of energy needed to heat water and maintain water temperature before it reaches equipment and fixtures. Title 20 addresses public utilities and energy and includes appliance and efficiency standards that promote water conservation. In addition, a number of State laws require water-efficient plumbing fixtures in structures.

Recycled Water

Title 22 California Code of Regulations, Division 4, Chapter 3 defines water-recycling criteria and appropriate uses for recycled water. Title 22 states that only tertiary water, defined as filtered and subsequently disinfected wastewater and subject to additional criteria, can be used for irrigation of food crops, including all edible root crops where the recycled water comes into contact with the edible portion of the crop; on parks, playgrounds, and school yards; for residential landscaping; and for unrestricted access golf courses.

Secondary recycled water is broken down into secondary-2.2 recycled water, secondary-23 recycled water, and non-disinfected secondary recycled water. These categories allow for progressively more restricted irrigation uses. Under Title 22, secondary-23 recycled water is acceptable for irrigation of the following: cemeteries, freeway landscaping, restricted access golf courses, ornamental nursery stock and sod farms (not requiring restricted general public access), pasture for animals producing milk for human consumption, any non-edible vegetation

where access is controlled so that irrigated areas cannot be used as if these areas were part of a park, playground, or schoolyard.

Water Conservation Act of 2009

The Water Conservation Act of 2009, also known as Governor Schwarzenegger's 20x2020 Plan, requires urban retail water suppliers to develop urban water use targets in order to achieve a 20-percent reduction in per capita water use by December 31, 2020. In order to achieve this goal, the act established an interim goal of a 10-percent reduction in per capita water use by 2015. Per capita reductions can be accomplished through any combination of increased water conservation and improved water use efficiency to offset potable demand. This 20-percent reduction also includes a 10-percent reduction in non-residential water uses (commercial, industrial, and institutional) by 2020. Under the new law, suppliers such as the City must develop urban water use targets and interim urban water use targets by July 1, 2011. The City's Draft 2010 UWMP sets forth the City's conservation targets.

County of Riverside General Plan

The County of Riverside General Plan administers policies and programs designed to manage existing supplies, by promoting the efficient use of water to the maximum extent possible, so that they can be maintained for future use. The Multipurpose Open Space and Land Use Elements address the County's policies on water supply and conservation.

While the County General Plan policies do not directly impact properties within the City, which is governed by its own General Plan, the County's General Plan does govern land use within the City's unincorporated Sphere of Influence and the unincorporated Planning Area until such time as those areas are annexed into the City. The Project site includes a 21-acre parcel in the unincorporated area. The following are the water supply policies that are applicable to the unincorporated portion of this Project site:

OS 1.1 Balance consideration of water supply requirements between urban, agricultural, and environmental needs so that sufficient supply is available to meet each of these different demands.

The following are the policies applicable to water conservation and groundwater recharge:

LU 4.1 Require that new developments be located and designed to visually enhance, not degrade the character of the surrounding area through consideration of the following concepts:

[Subsections a-e are not applicable to this section.]

f. Incorporate water conservation techniques, such as groundwater recharge basins, use of porous pavement, drought tolerant landscaping, and water recycling, as appropriate.

-
- OS 2.3 Encourage native, drought-resistant landscape planting.
- OS 4.1 Support efforts to create additional water storage where needed, in cooperation with federal, state, and local water authorities. Additionally, support and/or engage in water banking in conjunction with these agencies where appropriate, as needed.
- OS 4.2 Participate in the development, implementation, and maintenance of a program to recharge the aquifers underlying the County. The program shall make use of flood and other waters to offset existing and future groundwater pumping, except where:
- a. groundwater quality would be reduced;
 - b. available groundwater aquifers are full; or
 - c. rising water tables threaten the stability of existing structures.
- OS 4.3 Ensure that adequate aquifer water recharge areas are preserved and protected.
- OS 4.4 Incorporate natural drainage systems into developments where appropriate and feasible.
- OS 4.5 Retain storm water at or near the site of generation for percolation into the groundwater to conserve it for future uses and to mitigate adjacent flooding.
- OS 4.6 Use natural approaches to managing streams, to the maximum extent possible, where groundwater recharge is likely to occur.

City of Banning General Plan and Zoning Code

The City of Banning General Plan, Environmental Resource Element, provides goals and policies to balance development in such a way that assures the maintenance of the water supply and its continued high quality. This Element pursuant to Policy 3 also requires the use of recycled wastewater for new developments as a means of reducing demand for groundwater resources. Policy 3 states the following:

- Policy 3 The City shall require the use of recycled wastewater for new development, or where it is unavailable, the infrastructure for recycled water when it becomes available, as a means of reducing demand for groundwater resources.

Finally, this Element requires the use of drought-tolerant, low-water consuming landscaping to reduce water demand generated by new development pursuant to Policy 2 of this Element. Policy 2 states the following:

Policy 2 The City shall require the use of drought-tolerant, low-water-consuming landscaping as a means of reducing water demand for new development.

Title 13, Public Services, of the City of Banning Municipal Code provides the minimum standards for construction, reconstruction, abandonment, and destruction of all wells in order to: (a) protect underground water resources, and (b) provide safe water to persons within Riverside County. Pursuant to the authority cited in Chapter 13801(c) of the California Water code, the Riverside County health department enforces the provisions of this chapter within its jurisdiction. Title 13 also regulates water conservation within the City.

Clean and Green: Report and Recommendations

In June 2008, the City released its Clean and Green: Report and Recommendations (Clean and Green Report) in which the City recommends both expanded and new conservation programs. The Clean and Green Report identifies existing conservation programs as a baseline for improved conservation. As part of the policy contained in the Clean and Green Report, the City advises that all new projects, like this Project, and, whenever possible, all redevelopment projects should be designed to keep as much water as possible onsite to allow for penetration into the soil to filter and clean the water and recharge the aquifers.

1992 Plumbing Code Change and 2010 Green Building Standards

In 1992, through the federal Energy Policy Act of 1992 and state law amendments, major changes were enacted to the state and City plumbing codes, requiring greater water conservation and efficiency in plumbing fixtures in all new construction as of January 1, 1994.

Under the 2010 California Green Building Standards Code (CGBSC), new residences must reduce their indoor potable water use by 20 percent beginning on January 1, 2011. These standards apply to the planning, design, operation, construction, use and occupancy of every newly constructed building or structure. These reductions can be demonstrated in one of two ways: (1) by providing a calculation demonstrating a 20-percent reduction in the building water use "baseline;" or (2) by proof that each plumbing fixture and fitting meets reduced flow rates.

Post-1994 Changes Impacting Indoor Use for Existing Residences

In 2009, new rules were imposed to require pre-1994 residential and commercial development to replace all non-compliant plumbing fixtures with water-conserving fixtures starting in 2014 in a phased approach through 2019. As a condition for issuance of a certificate of final

completion and occupancy or final permit approval by the local building department after January 1, 2014, water-conserving plumbing fixtures must replace noncompliant plumbing fixtures for all building alterations or improvements to single-family residential real property, and for specified building alterations or improvements to multifamily residential real property and commercial real property.

By January 1, 2017, property owners must replace all noncompliant plumbing fixtures in single-family residences with water-conserving plumbing fixtures. Likewise by January 1, 2019, all noncompliant plumbing fixtures in multi-family residential and commercial property must be replaced with water-conserving plumbing fixtures. After January 1, 2017, a seller or transferor of a single-family or multifamily residence, or commercial property must disclose to the purchaser or transferee, in writing, any specified requirements for replacing plumbing fixtures, and whether the real property includes noncompliant plumbing. Cities must either enact local ordinances or establish policies that promote compliance with these regulations or enact such ordinances or policies that will result in a greater amount of water savings than those resulting from implementation of these regulations.

Model Water Efficient Landscape Ordinance and City's Landscape Requirements

In accordance with the Water Conservation in Landscaping Act of 2006 (AB 1881), DWR has prepared an updated Model Water Efficient Landscape Ordinance (Model Ordinance) intended to establish a structure for designing, installing, maintaining and managing water efficient landscapes in new and rehabilitated projects. The goal is to reduce water use to the lowest practical amount by setting maximum water use limits and by establishing provisions for water management practices and water waste prevention for established landscapes. The Model Ordinance provides guidance such as the Landscape Documentation Package, the Water Efficient Landscape Worksheet, as well as various plans, reports, and audits to require landscape developers to install efficient landscape and irrigation systems.

All local agencies (cities, counties, cities and counties, charter cities and charter counties) had until January 1, 2010, to adopt DWR's updated Model Ordinance or their own local water efficient landscape ordinance that was at least as effective in conserving water as the updated model ordinance. If a local agency has not yet adopted its own ordinance, the updated Model Ordinance applies within the jurisdiction of that local agency.

City Ordinance No. 1339 (2006)

On January 26, 2010, the Banning City Council adopted Resolution No. 2010-06, making the required findings that the City's water efficient landscape ordinance and existing municipal code sections are as effective as the state's Model Ordinance (attached as Exhibit D to the WSA, Appendix J). The City Council found that these existing municipal code sections and the actions of DWR, taken together, meet the goals and policies of the Water Conservation in

Landscaping Act regulations. The City submitted a copy of Resolution No. 2010-06 to DWR in accordance with AB 1881 requirements. The City's conservation regulations are found in its zoning regulations (Chapter 17.32 *Landscaping Standards*) and its Water Conservation (Chapter 13.16) and Stormwater Codes (Chapter 13.24).

On February 14, 2006, the City adopted a water efficient xeriscape ordinance to reduce water consumption in landscaping. The City adopted updated Landscape Standards⁴⁶ to ensure efficient landscapes in new developments and to reduce water use. The Landscape Standards apply to all new and rehabilitated landscaping for private, residential, commercial, public and governmental development projects.

The City's Landscape Standards set new maximum applied water allowance (MAWA) requirements for new landscapes and require documentation of MAWA calculations based on a new formula. MAWA is the "not-to-exceed" calculation required by the City for landscape designers and developers to determine an annual water use estimate. Because MAWA does not factor in rainfall, this calculation highlights the maximum water usage permitted for a site of a specified size. The evapotranspiration adjustment factor (ETAF) in the formula, which influences the amount of water that can be applied to a landscape, is set at a factor of 0.6, which is 25 percent lower than the MAWA factor that was typically applied in the City's previous landscape designs (previous ETAF 0.8). Based on this change, it is expected that new City landscapes will use 25 percent less water in the future. Actual new landscapes could achieve an even greater water demand reduction through the use of drought-tolerant plants and more efficient irrigation systems that exceed the MAWA requirements.

2010 California Green Building Standards Code (Sec. 4.304) Irrigation Controllers

The 2010 CGBSC now requires new residences to install weather or soil moisture irrigation controllers starting in 2011. Studies have shown that these controllers result in an additional 13 percent water savings. While the City's 2006 Landscape Standards do not require use of controllers with these features in residential use, the CGBSC mandates that the City start requiring them beginning in 2011. Accordingly, beginning in 2011, all landscape irrigation demand for future residential development should be reduced an additional 13 percent.

City of Banning Non-Residential Landscape Ordinance

The Banning Municipal Code contains standards for water efficiency that must be implemented for all landscaping plans required under section 17.32.020. In addition to developer-installed landscaping in single-family tracts and multifamily projects, the standards apply to "all new and rehabilitated landscaping for private, public, commercial and governmental development projects that require a permit." These standards apply to all new projects, redevelopment projects, and project modifications which add 25% or more to a structure's building area.

Each landscape documentation package must include a water conservation concept statement, calculation of the maximum applied water allowance (MAWA), calculation of estimated applied and total water use, a landscape design plan, an irrigation design plan, and a certificate of substantial completion.

Furthermore, all existing landscaped areas which use groundwater and are over 60,000 square feet, including golf courses, green belts, common areas, multifamily housing, schools, businesses, parks, and cemeteries must conduct a landscape irrigation audit at least every five years unless granted an exemption by the City.

City of Banning Non-Residential Water Conservation and Xeriscape

The City's emergency water conservation measures pursuant to Municipal Code Chapter 13 apply to "any person, firm, partnership, association, corporation or political entity using water obtained from the water system of the city." Chapter 13 also implements the City's "Water Conservation Using Xeriscape Principles." In addition to qualifying new residential developments, these conservation provisions apply to rehabilitated landscaping (for projects on parcels greater than ten thousand square feet) for industrial, commercial, institutional, multifamily and residential common areas of PUDs (Planned Unit Developments); interior remodels, tenant improvements and demolitions for any of the above projects; and schools, parks, golf courses or similar public open spaces. However, "water conservation landscape requirements apply to all new developments." Any new development applications must include landscape plans which require final approval at the time of final project approval. .

Under these requirements, the maximum allowed turf and/or water area (expressed as percent of planted area) is 25 percent for industrial, commercial, residential developments with common area, institutions and public/semi-public developments. At least 90 percent of the plants in non-turf areas must be drought resistant. A small percentage of the planted area (up to 10 percent) can be used for non-drought tolerant varieties if they are grouped together and can be irrigated separately.

California Green Building Standards Code for Non-Residential

The CGBSC also includes standards for non-residential buildings. Separate meters or metering devices must be installed to help reduce indoor water use. For example, for buildings in excess of 50,000 square feet, separate submeters must be installed for each individual leased, rented or other tenant space within the building projected to consume more than 100 gpd. Submeters must also be installed for spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop projected to consume more than 100 gpd.

A schedule of plumbing fixtures and fixture fittings that will reduce the overall use of potable water within the building by 20 percent must be provided for all new non-residential construction. The reduction must be based on the maximum allowable water use per plumbing fixture and fittings as required by the CGBSC. The CGBSC also mandates for non-residential buildings showerhead efficiency, wastewater reduction, and requires all plumbing fixtures to meet residential requirements.

For non-residential outdoor water use, the CGBSC requires a water budget for landscape irrigation, as well as separate meters for outdoor potable water use. In new nonresidential construction with between 1,000 and 22,500 square feet of landscaped area, builders must install irrigation controllers and sensors to reduce water use.

4.14.3 SIGNIFICANCE THRESHOLD CRITERIA

The criteria used to determine the significance of potential impacts related to water resources are derived from the Initial Study checklist in Appendix G of the State CEQA Guidelines. The project would result in significant impact related to water resources if it would:

- a) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.*
- b) *Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.*
- c) *Require or result in the construction of new water system facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.*

4.14.4 IMPACT ANALYSIS AND MITIGATION MEASURES

ANALYTIC METHOD

The previously certified Deutsch Specific Plan EIR addressed development of the Project site with up to 5,400 dwelling units. Impacts discussed below are generally consistent with the impacts described in the 1985 Deutsch Specific Plan EIR and subsequent EIR Update in 1993. This analysis has been updated to reflect the currently proposed Butterfield Specific Plan, including the offsite infrastructure and 21-acre unincorporated parcel. The EIR analysis incorporates the best available information as provided by the proposed Specific Plan, WSA (Appendix J), the *Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units, and Available Water Supply from the Beaumont Basin*, Draft 2010 UWMP, and associated tract maps. The analysis of potential impacts to water resources was based on the increase in demand resulting from the Project relative to the capacity of the existing water distribution system and water supply and the ability to provide the required domestic and irrigation water

for the Project. The Project's potential impacts on groundwater recharge were based on the anticipated impervious surfaces associated with the Project, the effect of those surfaces on groundwater recharge, and the increased stormwater detention and recharge resulting from the proposed development.

PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS

The following Project Design Features are elements of the proposed water system infrastructure. Included among these elements are the recycled water facilities which would minimize Project water demand and, therefore, reduce, avoid or offset potentially adverse water supply impacts:

Groundwater Recharge Facilities

- 1) The Project proposes an onsite groundwater recharge system to assist the City in replenishing the Beaumont Basin located beneath the Project site. The proposed system would have the capacity to recharge the groundwater basin with a portion of the City's SWP allocation delivered by the Pass Agency, as well as surplus recycled water generated by the Project, which would be blended to acceptable water quality levels for recharge use. As an optional improvement, in lieu of, or in addition to, continuing to utilize the Beaumont Cherry Valley Water District's existing recharge facilities, the City or applicant may extend the SWP pipeline from the Noble Creek Spreading Grounds to the proposed North Basin in PA 71 via Brookside Avenue, to create areas for recharge of imported water within the Project site and within the City's boundaries (refer to Section 3.4.4, *Offsite Facilities*).

Water Distribution Facilities

- 2) The Project proposes three to four above-ground steel water storage tanks for domestic (potable) water. The Project proposes three (3) potential pump station locations and in-tract water pipelines, which would connect to the City's existing system at Highland Home Road and Wilson Street as well as "C" Street and Wilson Street. In addition, the Project would also provide opportunities for three potential interconnects (with additional pump stations) with the Beaumont-Cherry Valley Water District along Highland Springs Avenue.

Recycled Water

- 3) The City is presently pursuing expansion of its main WWTP to provide capacity for the treatment of wastewater to tertiary standards; however, to ensure the availability of recycled water to the Project, the Butterfield Specific Plan proposes the construction of an optional or alternative onsite "satellite" WWTP to be owned and operated by the City of Banning. Recycled water would be used to irrigate the golf course and the common landscaped areas of the Project in order to reduce the demand for domestic (potable) water, both onsite and City-wide. In order to provide a non-potable water supply to the

project, the recycled water system would require either pumping reclaimed water from the City's wastewater treatment plant via a pipeline to the project, or constructing the optional onsite satellite wastewater treatment plant and conveying residuals to the City's plant.

In order to supply the Butterfield Specific Plan area with recycled water from the City's main WWTP, off-site recycled water transmission pipelines will need to be constructed from Highland Home Road/Wilson Street intersection eastward along Wilson Street, south on Sunset Avenue, eastward on Lincoln Street, south on Hathaway Street, and eastward on Charles Street to the City's main wastewater treatment plant. The Banning WWTP with the planned upgrades would then send recycled water through the pipeline to the point of connection with the Butterfield site's onsite distribution system. Pumps would be needed at points along the off-site line to get recycled water to the site. Refer to Exhibit 3.9B, *Off-site Recycled Water Transmission*, of the Butterfield Specific Plan.

The environmental review (Initial Study/Mitigated Negative Declaration) for the City's Phase I Upgrade project analyzed approximately 5 miles of recycled water pipeline from the existing WWTP to the Sun Lakes housing development to its west. The pipeline alignment, as described, would be located primarily along existing roadways and within the City's right-of-way. The pipeline would run from the WWTP along Charles Street, north on Hathaway Street, continuing west on Lincoln Street to Sunset Avenue where it would turn south on Sunset Avenue to the unpaved City access road that crosses unimproved land to the Sun Lakes housing development on the west side (the unpaved access road is an extension of Westward Avenue). The recycled water line would continue west on this access road along with the existing water, sewer and gas line to reach the Sun Lakes housing development. The environmental review has been completed on this pipeline for the City's Phase I project. Thus, only the portion of the Project's offsite recycled water transmission pipelines that are not covered by the Phase I Upgrade IS/MND is analyzed within this EIR, meaning the pipeline from the Project site to the intersection of Lincoln Street and Sunset Avenue.

IMPACT ANALYSIS AND MITIGATION MEASURES

Impact 4.14-1: Groundwater Supplies

Threshold: *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

Determination: Less than Significant with Mitigation Incorporated

Planning Horizon

This impact analysis evaluates the City's water supply availability and demands for a period of up to 15 years beyond the 20-year planning horizon required by law. The Water Supply Assessment law requires that a WSA assess whether the water supplier's (in this case, the City's) total projected water supplies during normal, single dry and multiple dry years, "during a 20-year project" are sufficient to meet the City's total projected water demand (including Project-generated demand). Because the project is anticipated to be built out within 30 years, the WSA incorporates a 35-year planning projection (or 2045).

Total Project Demand

The Butterfield Specific Plan would be constructed in five phases with an estimated 180 dwelling units to be developed per year on average. Through phasing, the associated water demands would start in 2013 to 2014 and reach capacity levels at expected Project build-out in 2045. Refer to the WSA, Section 4.5.2, for a more detailed breakdown of the water demand phasing.

The projected overall gross water demand for the Project at full build-out is approximately 4,224 AFY. The Project's gross or total potable water demand at build-out is 2,880 AFY. The non-potable demands of the Project, which includes golf course and landscape irrigation (parks and greenbelts), at build-out is approximately 1,344 AFY.

The Project's net total water demand with estimated future conservation reduction factored in is 3,103 AFY at full build-out. The Project's net potable water demand with conservation reductions is 1,783 AFY. The non-potable demand of the Project with conservation reductions is 1,321 AFY. Therefore, conservation measures would result in a total reduction in water demand of 1,121 AFY.

The Project also proposes an onsite groundwater recharge system to act as a partial offset (117 acre-feet at build-out) to the additional demand for domestic water posed by the development. At build-out, the Project alone will produce 942 AFY of direct wastewater flows, and the City may direct approximately 650 AFY of existing wastewater flows from areas surrounding the Project site in the event the City elects to construct the onsite satellite WWTP. This total wastewater flow of 1,592 AFY would be converted (at a 75-percent ratio) to a total Project recycled supply of 1,194 AFY. This recycled water supply would serve non-potable demands and reduce the City's demand for potable supplies by an equivalent amount.

If the satellite treatment plant is built on site, a portion of the Project's non-potable demands, and a portion of its potable demands, would be met through the Project's own infrastructure (described below). Table 4.14-11 details the project gross potable and non-potable water use for the proposed Project. Water demands for residential uses are based on the proposed maximum

number of dwelling units coupled with a water use factor of 0.52 AFY per dwelling unit (the water use factor is explained further in Section 5.1 of the WSA, Appendix J). Water demands for non-residential uses were calculated using the net acres for each use coupled with water use factors presented in the *City of Banning Water System Hydraulic Modeling Report* (2002) and utilized in the Draft 2010 UWMP.

Table 4.14-11
Projected Gross Potable and Non-Potable Water Use for the Project at Build-out (2045)

Land Use	Net Dwelling Units	Net Acres	Water Use Factor	Gross Water Use (gpd)	Gross Water Use (AFY)
Potable Water Use					
Residential					
All Residential Units	5,387	937.4	0.52 AFY/DU	2,500,884	2,801
Non-Residential					
Schools ^a (40% of area)	N/A	9.2	1.76 AFY/AC	14,456	16
Commercial/Office ^b	N/A	36	1.21 AFY/AC	38,889	44
Golf Course Club House	N/A	4.3	1.21 AFY/AC	4,645	5
Golf Course Greens ^c	N/A	4	3.44 AFY/AC	12,285	14
Irrigated Areas – Non-Potable Water Use					
Parks	N/A	66.5	3.44 AFY/AC	204,232	229
School Landscaping/Fields	N/A	13.8	3.44 AFY/AC	42,382	47
Golf Course	N/A	245.6	3.44 AFY/Ac	754,276	845
Other Common Open Space					
South Channel Area (PA 19) ^d	N/A	7.9	2,885 GPD/AC	22,792	26
North Basin Landscape Area (PA 71) ^e	N/A	15	2,490 GPD/AC	37,350	42

Table 4.14-11 (continued)
Projected Gross Potable and Non-Potable Water Use for the Project at Build-out (2045)
(continued)

Land Use	Net Dwelling Units	Net Acres	Water Use Factor	Gross Water Use (gpd)	Gross Water Use (AFY)
Landscape Easement (PA 71) ^f	N/A	4.4	2,490 GPD/AC	10,956	12
Fire Protection & Slope Areas ^g	N/A	25	1,000 GPD/AC	25,000	28
Water Tank Landscaping	N/A	3	1,000 GPD/AC	3,000	3
Major Street Parkways & Medians Landscaping ^h	N/A	40	2,490 GPD/AC	99,600	112
Total Potable Water Demands				2,571,159	2,880
Total Non-Potable Water Demands				1,199,587	1,344
Total Gross Water Demands for the Project				3,770,746	4,224

Source: *Water Supply Assessment* (Appendix J), Table 4.5.1. Footnotes follow on next page.

- Notes:
- The potable water use factor for schools is a factor used for Public Facilities in the City of Banning May 2002 Water System Hydraulic Modeling Report (irrigation demand is accounted for separately). (Banning's 2005 UWMP also uses the 1.76 AFY per acre factor, as well as the Pass Agency 2009 Supplemental Water Supply Planning Study.
 - The potable water use factor for commercial use, including the golf course clubhouse, is a factor used for commercial land use in the City of Banning's 2002 Water System Hydraulic Modeling Report. Banning's 2005 UWMP also uses the 1.21 AFY/AC factor, as well as the Pass Agency 2009 Supplemental Water Supply Planning Study.
 - Due to the sensitive nature of the Project's golf course greens, the 4 acres of greens will require potable water. However, the majority of the golf course's landscaping (fairways and roughs) will be irrigated with non-potable supplies. The water use factor for golf course greens, tees, fairways, roughs, parks and school fields is used in the City of Banning's 2002 Water System Hydraulic Modeling Report. Banning's 2005 UWMP also uses the 3.44 AFY/AC factor for golf courses, which could be a blended factor for all golf course landscaping, not just turf.
 - The water use factor for the South Channel area is a blended factor based on 50% of the area being planted with irrigated reinforced turf mat for the channel and low water use plants with drip irrigation in the other 50% of this area.
 - The water use factor for the North Basin (PA 71) is based on use of medium water use plants with drip irrigation in this area. Based on this factor, it is expected that this area would meet the City's MAWA as allowed by Banning Municipal Code Chapter 17.32 ("Landscaping Standards").
 - The water use factor for the landscaped easement area (PA 74) is based on use of medium water use plants with drip irrigation in these areas. Based on this factor, it is expected that this area would meet the City's MAWA as allowed by Banning Municipal Code Chapter 17.32 ("Landscaping Standards").
 - The water use factor for the open space fuel modification slope areas and the water tank landscaping is based on the use of low water use plants with drip irrigation. Based on this factor, it is expected that these areas would meet the City's MAWA as allowed by Banning Municipal Code Chapter 17.32 ("Landscaping Standards").
 - The water use factor for the major street parkways and medians areas is based on the use of medium water use plants with drip irrigation. Based on this factor, it is expected that these areas would meet the City's MAWA as allowed by Banning Municipal Code Chapter 17.32 ("Landscaping Standards").

Summary of Projected Conservation Reductions in City and Project Water Demand

Section 5.3 of the WSA (Appendix J) defines the new and existing conservation requirements that are anticipated to reduce demand within the City. The City's net demand projection incorporate demand reduction of residential and non-residential development in the City, including the Project. The Project WSA included two methods for calculating net demand: (1) reductions based on California Governor Schwarzenegger's 20x2020 Plan (Section 5.3.1 of the WSA); and (2) focused, incremental demand reduction based on existing conservation programs and requirements for new and existing development (Section 5.3.2 of the WSA).

In 2010, the City's gross water demand was 8,479 AFY. Thirty-five years later, in 2045, the City projects that its gross water demand will be 19,491 AFY. However, the City has estimated that total savings utilizing the 20x2020 reductions from the baseline in 2015, 2020, and 2045 are 384 AFY, 1,697 AFY and 2,781 AFY respectively. Using the focused, incremental demand reduction method, with implementation of conservation measures, the City will reduce its demand over time: by 257 AFY in 2015; and by 3,422 AFY in 2045 — a demand reduction of almost 18 percent.

This projections of water demands under the study period are conservative — as noted in the WSA, Appendix J, Section 5.3 — and therefore provide a reasonable evaluation of City-wide demands for the study period. For example, the conservation water reduction estimates are conservative, because additional conservation with existing residential (outdoor use, as well as indoor use) and existing non-residential water uses within the City are expected to experience additional water demand reductions. Further, the WSA uses a conservative factor of a 40-percent reduction in indoor water use from conservation, even though the City's studies demonstrate that indoor water uses will be reduced by as much as 50 percent for new homes. A conservative baseline for water use of 325 gpd per capita was also used as compared to other service areas with similar demographics that have much lower baselines.

Because of these conservation efforts described above, City demand will not increase as quickly as population. Over time demand per capita will decrease or level out.¹⁵ Table 4.14-12 below summarizes the net total projected Project water demand after conservation measures are applied.

This methodology is used to project the Project's specific demands as specific land use information, such as the size of the golf course and parks, is available for the Project. Table 4.14-13 summarizes the net total projected City water demand after conservation measures. Demand reductions are based on subtracting the City's existing (as of 2010) residential households (10,838 households per Census data) from each successive five-year increment of projected City households (refer to WSA, Appendix J, Table 5.2.4) to provide projections for future new residential households. The baseline for projected reductions is based on the City's recent historic average of 0.52 AFY of water per household factor. These factors are separated

¹⁵ See MWD's Regional 2010 UWMP, Exhibit A.

into indoor/outdoor use, using the 50/50 ratio. Then, the baseline is reduced by the following conservation factors: 40 percent for indoor use; and 38 percent for outdoor use. The projected indoor and outdoor water demand reduction factors result in an overall residential demand reduction factor of 39 percent for future new residences, which equates to an average water demand factor of 0.32 AFY per new residential household.

Table 4.1412
Net Total Projected Project Water Demand (AFY)

	2015	2020	2025	2030	2035	2040	2045
Gross Projected Water Demand	1,253	1,891	2,398	2,913	3,496	4,019	4,224
Demand Savings from Conservation	111	304	490	674	863	1,047	1,121
Net Total Projected Demand after Conservation Savings	1,142	1,587	1,908	2,239	2,633	2,972	3,103

Source: *Water Supply Assessment* (Appendix J), Table 5.3.2.4.

Notes: The water demand savings from conservation are based on a 39% reduction on residential use (50/50 split on indoor/outdoor use, 40% reduction on indoor and 38% reduction on outdoor); 10% reduction on commercial uses, including golf course clubhouse; and 10% reduction on park demand based on the rationale set forth in Section 5.3.2 of the WSA.

Table 4.14-13 demonstrate that the City's incremental conservation projections are nearly identical to the City's 20x2020 conservation target projections, and therefore support the conclusion that the City's 20x2020 conservation projections are reasonable and can be achieved (refer to WSA, Appendix J, Table 5.3.1 and Table 5.3.2B).

Table 4.1413
Net Total Projected City Water Demand (AFY)

	2015	2020	2025	2030	2035	2040	2045
Gross Projected Water Demand	10,760	11,880	13,117	14,482	15,989	17,653	19,491
Demand Savings from Conservation	257	1,081	1,506	1,968	2,469	2,926	3,422
Net Total Demand	10,503	10,800	11,610	12,513	13,521	14,727	16,069

Source: *Water Supply Assessment* (Appendix J), Table 5.3.2.3B.

TOTAL PROJECT SUPPLY

Project Generated Supply

Optional Satellite Wastewater Treatment Plant (or use of City reclaimed water)

One option of providing wastewater treatment to the Project is to construct a satellite treatment plant within the Project area. The satellite plant can receive wastewater gravity flows from the Project, treat them to tertiary levels and pump back recycled water into the Project's recycled water system for non-potable uses. Recycled water would be delivered to the areas through a piping system.

At build-out, the Project could produce approximately 942 AFY of wastewater flow.¹⁶ In addition, there are 650 AFY of existing wastewater flows in the surrounding areas that could be diverted and treated by the satellite WWTP for a total of 1,592 AFY for recycled water generation. Based on the industry standard of a 75-percent factor for converting wastewater into recycled water, 1,592 AFY of wastewater could generate 1,194 AFY of recycled water at build-out. At build-out, the Project's non-potable water demands are projected to be 1,321 AFY, including anticipated water conservation. Therefore, if constructed, the satellite WWTP would produce, at build-out, recycled water to serve the entire Project's non-potable demands.

If the onsite satellite plant is not constructed, the applicant would pump reclaimed water from the City's WWTP Phase I Upgrade to the site, for use in meeting non-potable water demands. Recycled water is expected to be available to consumers in the City of Banning beginning in 2015, when the Phase I expansion of the City's Wastewater Treatment Plant is completed and tertiary treatment of wastewater is available.

Pursuant to State regulations, recycled water treated to tertiary standards can be used for irrigation of public parks, golf courses, landscape medians, other landscape and industrial uses. An initial distribution line to the Sun Lakes development is currently planned. The Butterfield Specific Plan is expected to extend a line to the City's WWTP for recycled water to the Specific Plan area. Implementation of recycled water distribution infrastructure will take place over time to meet emerging needs. The City's 2010 Draft UWMP anticipates this infrastructure expansion and includes recycled water as part of the City's anticipated water portfolio.

¹⁶ Project wastewater generation is based on 139.3 gpd per Project residential unit (5,387 max. units) and 101 AFY of total wastewater generation from the Project's non-residential uses (commercial, schools, club houses, recreation centers). The Project's projected wastewater flows are based on net demand – e.g., after residential indoor conservation measures projected for the Project have been applied. The project residential wastewater flow estimates are based on the Project indoor water demand. Wastewater flow is reflective of indoor water demand, since most of the indoor water use is flushed or sent down sinks and drains which ultimately makes its way to wastewater facilities. The Project is estimated to generate 50% of 0.52 AFY per unit for indoor water demand. This equates to 0.26 AFY or 232 gpd. Imposing the 40% reduction for conservation, the estimated wastewater per residential unit equals 139.3 gpd. The 101 AFY non-residential factor was based on wastewater flow factors presented in the November 2006 *Sewer System Study*, prepared by Carollo Engineers.

This projected use of recycled water from the City's WWTP and associated appurtenant facilities are already covered by an adopted Mitigated Negative Declaration (MND).¹⁷ However, the portion of the Project-related offsite recycled water pipelines from the project site to the intersection of Lincoln Street and Sunset Avenue was not analyzed in this MND. Impact discussion 4.12-9B in Chapter 4.12 of this EIR analyzes offsite impacts related to recycled water system improvements. This section concludes that the majority of these improvements would be constructed within existing roadways and would be below ground. Impacts associated with construction of these facilities have been addressed in appropriate sections of this EIR. No long-term environmental effects associated with operation of these subsurface facilities are anticipated.

Recapture and Recharge of Stormwater

The Project at build-out is estimated to create an increased average annual stormwater drainage runoff of approximately 470 AFY in the developed condition as compared to the existing undeveloped site condition. A portion of this increased runoff would percolate into the Beaumont Basin as it flows over pervious areas (open ground, unpaved areas, landscape areas, water quality features, soft-bottomed channels and Smith Creek, or as it collects in proposed infiltration or recharge basins) and would be stored in the City's stored water account for future use.

The portion of the stormwater that would seep into the ground and percolate into the Beaumont Basin is approximately 25 percent¹⁸ of the increased runoff calculated amounts (25 percent of the ultimate 470 AFY at build-out = 117 AFY). The percentage of runoff that would recharge the basin is a conservative estimate, since the Project is not designed to capture 100 percent of the increased runoff. Also, the proposed system is designed to direct runoff to the project recharge basins where it could be recharged; however, this would require significant storm events to generate the necessary flows. These events would occur infrequently and irregularly. The Beaumont Basin Watermaster would account for all flows that recharge the Beaumont Basin. .

Onsite Groundwater Recharge (Smith Creek and North Basin Reservoir; Optional SWP)

Designated areas have been delineated along the Smith Creek channel in the expanded central golf course areas of the Project or in line with other tributaries to Smith Creek for potential artificial groundwater facilities. Stormwater flows in Smith Creek from upstream (north) of the Project site can be collected in the proposed North Basin Reservoir in PA 71 of the Project site in an amount, when available, equal to the increase in runoff amount. These flows would then be conveyed to the Project's planned recharge basins to ensure recharge to the groundwater.

In addition to the recaptured Project runoff of 117 AFY, described above, the Project's

¹⁷ City of Banning, Water/Wastewater Utilities Department, *Initial Study/Mitigated Negative Declaration: Wastewater Treatment Plant Expansion and Phase I Recycled Water System*, May 2008.

¹⁸ This factor was based on recharge potential discussed in the City's 2005 Urban Water Management Plan.

groundwater recharge system may be used in the future for recharge of imported water supplies and recycled water. The City's projected increase in purchases of imported water to service the Project and other future demand will not cause any new impacts not previously identified in the certified East Branch Extension – Phase II EIR.¹⁹ Delivery of 17,300 AFY Table "A" SWP supply to the SGPWA and the East Branch Extension, Phase 2 project was already covered by the East Branch Extension - Phase II EIR and SGPWA *Water Importation Project* EIR and subsequent Addendum Nos. 2 and 3.²⁰ As shown in Table 4.14-6, the City will purchase 2,595 AFY, on average, of imported water beginning in 2015. An extension of the SWP pipeline from its current terminus to the Butterfield Project would allow an increase in the amount of recharge capacity (though there are no plans for any more water supply than the existing 176,300 AFY and thus no additional capacity is needed) and a greater diversity of recharge location for the City.

However, the potential SWP pipeline to the Project site was not analyzed in these EIRs. Impacts associated with construction of this potential facility have been addressed in appropriate sections of this EIR. No long-term environmental effects associated with operation of this subsurface facility are anticipated. The extension of the SWP pipeline to the Butterfield Project site shall comply with site-specific improvement guidelines as reflected in PSU-4, which requires fair market compensation for private land acquisition, if City-owned parcels are not available, and a general biological assessment for off-site aboveground infrastructure, by a qualified biologist.

Infiltration rates measured along Smith Creek were approximately 6 feet per day (6 ft/day) or greater (refer to the *Preliminary Geohydrologic Evaluation of Artificial Recharge Potential*, Appendix G, Section 2.3.3). However, long-term average infiltration rates are typically lower due to reduction in recharge from clogging. Therefore, a range of long-term average infiltration rates of 1 to 2 ft/day is assumed. Given the assumed range of 1 to 2 ft/day and an effective recharge area of 13 acres, the artificial recharge potential for the Project site estimated to range from approximately 13 to 26 AF/day. Assuming this rate is maintained 270 days of the year (excluding maintenance period of 3 months), a preliminary estimate of annual artificial recharge potential for the Project ranges from approximately 3,500 to 7,000 AFY. This amount exceeds the projected potable water demand of the Project, estimated to be approximately 2,880.

Comparison of Water Supplies and Demands

Table 4.14-14 compares the total available water supplies with water demands for the Project and other anticipated City demands. The City's existing and projected water supplies are sufficient during normal, single dry, and multiple dry water years during a 35-year period to meet the projected water demands of the Project, in addition to the City's existing and planned

¹⁹ Department of Water Resources, *East Branch Extension – Phase II Environmental Impact Report* (SCH No. 200704101), Draft prepared September 2008.

²⁰ San Geronio Pass Water Agency, *Water Importation Project Environmental Impact Report* (1994107039), Notice of Determination filed April 1994.

future uses. Therefore, sufficient water supplies are available to serve the Project.

Table 4.14-14
Comparison of Total City Water Supplies (AF) and Net Demand (with Project)

Year	2015	2020	2025	2030	2035	2040	2045
With Project							
Average Year							
Total Supplies	53,686	63,166	71,612	79,303	86,290	92,975	99,615
Total Demands	10,376	10,183	11,243	12,413	13,705	15,135	16,710
Difference	43,310	52,983	60,369	66,890	72,585	77,840	82,905
Single Dry Year							
Total Supplies	52,432	61,912	70,358	78,049	85,036	91,721	98,361
Total Demands	10,376	10,183	11,243	12,413	13,705	15,135	16,710
Difference	42,056	51,729	59,115	65,636	71,331	76,586	81,651
Multiple Dry Year							
Total Supplies	52,037	61,517	69,963	77,654	84,641	91,326	97,966
Total Demands	10,376	10,183	11,243	12,413	13,705	15,135	16,710
Difference	41,661	10,183	58,720	65,241	70,936	76,191	81,256

Because the stormwater supply described above (117 AFY) would be recharged into the Beaumont Basin for storage, this supply would offset the Project net demand by 117 AFY at buildout. This additional source of recharge can be credited to the City's Beaumont Basin stored water account as new yield for future use. To ensure a conservative estimate of the City's projected water supplies, the WSA does not include the anticipated stormwater supply associated with the Project in its projections.

Impacts to Existing Groundwater Wells

The proposed Project would create new demand on the City's water supply; however, this demand could be met through the City's existing and future supplies. Adequate groundwater production may be achieved through the City's existing wells. However, the City may need to develop one additional well in the Cabazon Basin if the City's R-1 cannot be used for the production of potable water given its proximity to the City's Cabazon percolation ponds. The

City intends to extract all historical and future water percolated into the Cabazon Basin from the City's WWTP and other future groundwater recharge operations. In addition, the City intends to develop additional groundwater supplies from the Cabazon Basin as part of its conjunctive use groundwater management. Groundwater extractions from the Cabazon Basin will be that amount which will not result in adverse impacts to the Basin. It is expected that this amount may also vary with both location and hydrologic conditions."

Groundwater pumping, and associated City infrastructure such as groundwater wells and conveyance facilities, are being or would be provided by the City as part of their obligation to meet City water demands. Individual facility construction for the City-wide system is subject to the City's own discretionary review process.

There are no proposed onsite wells. Water for the Project is proposed to come primarily from existing offsite City wells. One additional Cabazon well may need to be equipped to accommodate the additional Project and other projected water demand.

In Geoscience's *Maximum Perennial Yield Estimates* report, an estimate of the maximum perennial yield for the Cabazon Basin was developed using the equation of hydrologic equilibrium, or water budget. The study showed that on average, a positive change in storage of 1,805 AFY occurs in the Basin including the average annual extraction of 710 AFY from City well C-6 (the City's only active groundwater well in the Cabazon Basin). The positive change in storage is, in part, due to the City's annual percolation of secondary treated wastewater of approximately 2,655 AFY into the Cabazon Basin. The study concluded that the City may extract a total of 2,515 AFY, on average (an increase of 1,805 AFY over historical average annual extractions from C-6 of 710 AFY) from the Cabazon Basin without inducing overdraft conditions. Well C-6 has the capacity of extracting 1,018 AFY if pumped at its 70-percent (256 days per year) operational capacity (which allows for maintenance) at 900 gallons per minute. Therefore, an additional 1,497 AFY on average ($2,515 \text{ AFY} - 1,018 \text{ AFY} = 1,497 \text{ AFY}$) could be extracted from the Cabazon Basin if an additional City well is constructed for pumping.

The City's second (inactive) well (R-1), which has a design capacity of 1,500 gpm/2,421 AFY, may be equipped for production at any time. However, given the location of R-1 in close proximity to the City's Main WWTP, it is possible that the RWQCB may conclude that the R-1 well is under the direct influence of surface water and, therefore, may only be used for non-potable uses. No environmental review or approvals would be required for the City's continued groundwater production from C-6 for potable uses and the City's use of R-1 for non-potable uses. In the event the City wishes to construct a second potable well in the Cabazon Basin, it must obtain a permit from the Riverside County Department of Environmental Health. This is not considered unique mitigation pursuant to CEQA Guidelines, but rather is a standard permitting procedure for the construction of groundwater wells within Riverside County. The

City has allocated \$5.9 million for the construction of additional wells as necessary to serve future development and to augment existing supply.²¹

The closest non-City of Banning pumping well to Well R-1 is located approximately one mile away. However, a negligible drawdown would occur from increased pumping from R-1. This negligible drawdown would not result in any significant impact to the well or operation of the well. If an additional well is constructed to maximize use of the Cabazon Basin for groundwater development, the well can be located so as to not result in impacts to existing wells (refer to Mitigation Measure WS-1).²² Groundwater pumping from the Cabazon Basin is not anticipated to affect existing wells due to the distance from existing City wells to other wells.²³ For any future well, the City would proceed with a well development program as is done for other City wells, including locating new wells to minimize adverse effects upon nearby active wells based on hydrogeologic investigation and initial well development tests (refer to Mitigation Measures below).

The City does not propose additional pumping within Banning Basin, Banning Bench Basin or Banning Canyon Basin to serve the Project and therefore would not impact nearby wells. The City's existing wells in each of these basins provide sufficient capacity to continue to produce historical amounts.

The Beaumont Basin is an adjudicated basin. Pursuant to the Beaumont Basin Judgment, the Court appointed a Watermaster. The Beaumont Basin Watermaster ("Watermaster") is a multi-party agency consisting of representatives from the Cities of Banning and Beaumont, BCVWD, Yucaipa Valley Water District (YVWD), and South Mesa Water Company (SMWC). The Watermaster is responsible for managing the Beaumont Basin and administering adjudicated water rights pursuant to the Court's continuing jurisdiction. The Watermaster is responsible for accounting for production from the basin, among other things. Groundwater pumping in the Beaumont Basin is subject to extensive monitoring, replenishment and appropriator coordination pursuant to the Watermaster rules and basin adjudication. The City's pumping is subject to the Judgment and the Watermaster's ongoing management.

The City proposes to maintain average historical amounts from the Beaumont Basin in order to promote the accumulation of water (both from the City's unused production rights and recharged imported water) in the City's stored water account. Therefore, the City does not propose increases in pumping from the Beaumont Basin and does not propose pumping in excess of its rights in the basin. The City's existing wells provide sufficient capacity to continue to produce historical amounts. All water production and storage operations in the basin are subject to the adjudication and resulting court judgment. The court's and Watermaster's ongoing management of the basin ensures that the City's production of its rights in the basin,

²¹ City of Banning, Capital Improvement Program: 2007-2012 (Jan. 8, 2008), p. 2.

²² City of Banning, *Maximum Perennial Yield Estimates* (2011), p. 37-40.

²³ City of Banning, Draft 2010 UWMP (2011), Figure 5-4.

including withdrawal of water from storage, does not result in adverse impacts on the basin or material interference with other basin right holders. Therefore, less than significant impacts to groundwater levels are anticipated.

Mitigation Measures

The Project has reduced, avoided or offset potentially adverse impacts to water supply through Project Design Features noted above (all of which are summarized in Section 3.8, *Project Design Features*). To ensure groundwater levels in the Banning, Banning Bench, Banning Canyon and Cabazon Basins are maintained within acceptable levels and to avoid interference with existing wells when new wells are constructed, the City will:

WS-1: With respect to all City groundwater supplies, the City will:

1. Periodically, conduct a groundwater audit that evaluates groundwater level trends, production rates, groundwater quality or other aquifer/well/pump considerations from the previous year (through use of a on-going groundwater monitoring and data collection system).
2. Develop a groundwater model to allow accurate simulation of groundwater flow and groundwater quality (including potential impacts by recharge of recycled water) in the City of Banning groundwater resource area.

Additionally, to avoid injury to other legal users of the Cabazon Basin, the City will:

3. Site any new well so as to not result in material interference to existing wells.

Impact 4.14-2: New or Expanded Entitlements

Threshold: *Would there be sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

Determination: Less than Significant

The City of Banning possesses vested appropriative rights to extract groundwater from the Banning, Banning Bench, and Banning Canyon Basins. The City also possesses vested appropriative and developed water rights in the Cabazon Basin. As noted above, the Beaumont Basin is an adjudicated basin. Beginning in 2014, the City's right to pump will be determined by the Watermaster. The anticipated future Project demand would not cause the City to exceed its rights in any of the five groundwater basins from which it presently obtains its supply.

Given the City's integrated water supply and distribution system, groundwater produced from the Beaumont, Banning, Banning Bench, Banning Canyon, or Cabazon Basins may serve the Project. As presented in Table 4.14-14, the projected City water supply would exceed the projected City water demand (with Project).

Construction of the Project would create up to 117 AFY of additional supply (stormwater) at buildout for recharge into the Beaumont Basin, either via the North Basin or Smith Creek recharge areas, subject to the limits of the City's approved Stored Water agreement and approval by the Beaumont Basin Watermaster. Additionally, the Project Applicant (or City) would be required to file a Report of Waste Discharge with the RWQCB as well as comply with Title 22 regulations. RWQCB would prescribe waste discharge requirements for proposed uses of recycled water which relate to the conditions in the use area. The requirements implement relevant water quality control plans, take into consideration beneficial uses to be protected, and establish water quality objectives reasonably required for that purpose. The Project Applicant would be required to apply for an individual order setting waste discharge requirements (WDRs). The City may be restricted from using recycled water that exceeds water quality objectives for total dissolved solids (TDS) or nitrogen.

In addition, the City has recently enrolled in the Maximum Benefits Program in the Beaumont Management Zone (BMZ). As a participant in the BMZ program, the City will be allowed to discharge recycled water of higher TDS (up to 480 mg/L) with the commitment to participate in actions to reduce the TDS concentrations or through a TDS offset using its allocation of imported water. As part of the Maximum Benefits Program, RWQCB has required BCVWD, the City of Beaumont, and YVWD to develop TDS and nitrate-nitrogen concentration projections for the Beaumont Management Zone. The City also participated in this study in anticipation of its use of recycled water within the BMZ. Because the maximum benefit objectives incorporated into the Basin Plan were based on model projections, the RWQCB requires that each new use be evaluated prior to issuing permits for additional recycled water uses and that the Region 8 Basin Plan be amended to include an updated maximum benefit implementation plan.

If the SWP Extension is constructed, it would require the City to potentially obtain encroachment permit approvals from Caltrans and SCE and approve grading and infrastructure permits and improvement plans. The extension would also require review from the Riverside County Flood Control and Water Conservation District, a permit for use of SWP facilities from the Department of Water Resources, approval from the SGPWA, and possibly approval by SBVMWD.

These approvals would be required for the new extension to the North Basin and *not* for the construction of the East Branch Extension, Phase II or the importation of SWP water, which was previously analyzed in the certified East Branch Extension – Phase II EIR, SGPWA Water Importation Project EIR, and subsequent Addendum Nos. 2 and 3).

For the Banning Basins, the City does not propose increasing its pumping from any of the Banning Basins (i.e., the project average annual available supply equals to the City's historical production from these Basins) and does not propose the construction of any new wells. Refer to Table 6.1.6.4 (WSA, Appendix J) for Banning Basins projected supply. The City is the only major producer in all three basins; minor private pumping is considered immaterial.

In the Geoscience *Maximum Perennial Yield Estimates* report, a water balance was prepared which determines that a positive change in storage has occurred as a result of inflow and outflow factors including wastewater percolated into the Cabazon Basin.

Groundwater recharge to the Cabazon Basin is also obtained from precipitation infiltrating into the ground within the surface water catchments tributary to the unit and from subsurface inflow from the Banning, Banning Bench, and Banning Canyon Basins. Groundwater outflow from the Cabazon Basin includes pumping²⁴ and subsurface outflow to the Indio subbasin and subsurface outflow to the San Jacinto Tunnel. The *Maximum Perennial Yield Estimates* report concludes that the maximum perennial yield of the Cabazon Basin is 5,265 AFY, of which 2,515 AFY may be produced by the City, on average, without causing undesirable results on the Basin.

The City proposes increases in the City's pumping from the Cabazon Basin to make use by extraction of all historical and future water percolated into the Cabazon Basin from the City's WWTP and other future groundwater recharge operations. In addition, the City intends to develop additional groundwater supplies from the Cabazon Basin as part of conjunctive use groundwater management. Groundwater extractions from the Cabazon Basin will be that amount which will not result in adverse impacts to the Basin. It is expected that this amount will amount may vary with both location and hydrologic conditions. Refer to Table 4.14-15 below for inflow and outflow terms used in calculating the Cabazon Basin's hydrologic budget.

For purposes of projecting Cabazon water supplies into the future, inflow of recycled water increases in time to account for the increase of wastewater generated by an increase in population over time. This recycled water will be percolated into the Cabazon Basin. However, once Phase I of the WWTP expansion is completed, 1,680 AFY will be used for irrigation purposes and may no longer be applied to the Cabazon Basin as direct percolation.

²⁴ Geoscience's analysis was based on the water budget which takes into account existing pumping by others; the *Maximum Perennial Yield Estimates* report based its future pumping estimates on average groundwater extractions from the Cabazon Basin during the period 2003 to 2009.

Table 4.14-15
Hydrologic Budget – Cabazon Basin (AFY)

Inflow					Outflow			Average Annual Change in Storage
Underflow from Banning Basin	Underflow from Banning Bench Basin	Mountain Front Runoff and Aerial Recharge	Recharge of Treated Wastewater	Total Inflow	Subsurface Outflow to Indio Subbasin and the San Jacinto Tunnel	Ground Water Pumping	Total Outflow	
2,300	350	10,460	2,655	15,765	10,500	3,460	13,960	1,805

Source: *Maximum Perennial Yield Estimates* report (Appendix J, [sub] Appendix D), Section 7.4.2.1.

To determine the volume of treated wastewater that will be percolated into the Cabazon Basin, the volume of wastewater generated from Phase I completion (1,680 AFY) was deducted from the future wastewater generation estimates after 2015 (when completion of Phase I is expected to occur). The remainder of treated wastewater will be applied to the Cabazon Basin in the form of percolation and was incorporated in the hydrologic budget to estimate the anticipated future change in storage in the Cabazon Basin using the method and inflow and outflow parameters as described in the Geoscience's *Maximum Perennial Yield Estimates* report (refer to Section 7.4.2).

Geoscience has determined that the volume of groundwater represented by the change in storage is water available to the City for development. The projected change in storage in addition to the City's average production of 710 AFY (from Well C-6) was used to determine available future supplies to the City from the Cabazon Basin. Total supplies available to the City from the Cabazon Basin are shown in Table 4.14-9 (also refer to Table 4-1 of the UWMP²⁵). As noted above, these values assume that Phase I of the WWTP expansion will be completed by 2015, and 1,680 AFY will be treated to tertiary standards and used to offset potable demand; therefore, the 1,680 AFY is excluded from these estimates.

Geoscience's *Maximum Perennial Yield Estimates* report determined that groundwater levels within the Cabazon Basin closely follow the pattern of rainfall, declining during dry periods and rising during wet periods. Overall, however, the long-term change in groundwater in storage appears to remain the same (i.e., no long-term declines or increase).

²⁵ Note: The 2010 UWMP covers years 2015 to 2035. However, the WSA's study period extends until 2045 to account for full build-out of the Project.

The projected water demands of the Project would not require additional extraction (beyond what is mentioned above) from the Cabazon and Banning Basins. These are unadjudicated Basins and would not require permits or agreements for additional groundwater extraction. Therefore, no new or expanded entitlements are anticipated for these particular Basins. Additionally, with implementation of Mitigation Measure WS-1, less than significant impacts are expected.

Impact 4.14-3: Construction of Water System Facilities

Threshold: *Would the project require or result in the construction of new water system facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Determination: Less Than Significant with Mitigation Incorporated

Direct Effect

The Project proposes construction of several water supply and water quality features that are described as part of the Project Design Features in Section 4.14.4. The Project proposes construction of comprehensive water treatment, storage and transmission facilities to meet projected water demands for uses in the proposed Specific Plan. The Project would be integrated into the City domestic water system.

As part of the storage and Project's transmission system, three to four above-ground water tanks are proposed, having a total storage capacity of approximately 3.5 million gallons (mg). These tanks would be constructed to serve homes in the Project's development that would become part of the City's existing lower Foothill West Pressure Zone, onsite Pressure Zone I, and onsite Pressure Zone II. The proposed Project's approximate 1.6 mg Foothill West storage tank would be located on the east side of PA 50 at an elevation of approximately 2,790 feet amsl. Alternatively, this storage tank could be buried under the playing fields of the PA 68 school site. Both the Project's approximate 1.5 mg Zone I and 0.5 mg Zone II storage tanks would be located in the east portion of PA 73, at minimum pad elevation of approximately 3,038 feet amsl for Zone I and approximately 3,205 feet amsl for Zone II. The Specific Plan would allow the construction of either a single tank or two side-by-side storage tanks to serve Pressure Zone I.

The ultimate size and location for the project storage tanks and pipelines would be based on effectively balancing deliveries throughout the Project as well as the City. Water tank locations/elevations are approximate and may change to reflect final grading, hydraulics, and fire suppression/code requirements. The timing of these improvements would coincide with the number of homes under construction to ensure that adequate pressures can be addressed.

Additional water treatment, storage and transmission facilities include the optional onsite satellite treatment facility, three pump stations, subsurface pipelines, and the offsite sewer lift station. The tallest structure for the treatment facility, a one million gallon water storage tank, would be 35 feet in height, similar to the maximum height of a residential structure. All treatment processes would take place within an enclosed structure(s). The proposed lift station would be located on a small commercial lot in an appropriately designed and screened building. Similarly, the pump stations would be located within an enclosed structure.

The water supply and water quality-related elements described in Section 4.14.4 are part of the overall Project, and therefore their environmental impacts are analyzed throughout Section 4 of this Draft EIR, including Impact 4.14-1 of this Chapter (including the optional SWP pipeline extension to the Project site, potential recharge of imported or recycled water within the North Basin, the optional satellite treatment plant, and the potential extension of Phase I Upgrade pipelines from the City's Main WWTP). Refer to applicable Mitigation Measures within Chapters 4.1, 4.3, 4.4, 4.6, 4.8, 4.9, 4.11, 4.12, and 4.14. As described under Impact 4.14-1, Mitigation Measures PSU-4 would reduce impacts to less than significant levels. PSU-4 requires fair market compensation for private land acquisition required for offsite infrastructure, if City-owned parcels are not available, and a general biological assessment for offsite aboveground infrastructure.

The Noble Creek recharge facilities (which may also be used for Beaumont Basin groundwater recharge from SWP water) have a previously certified Final EIR, as noted in Section 2.6, *Incorporation by Reference*. No additional impacts beyond those described throughout Section 4 are anticipated.

4.14.5 CUMULATIVE IMPACTS

Determination: Less than Significant with Mitigation Incorporated

As discussed above, the City and water management purveyors in the Basin have acquired water supplies and prepared water plans considering regional land use plans, including the relevant general plans. As the planned growth in the Banning area continues to occur, the demand on water resources will increase. However, the proposed Project and other reasonably foreseeable projects would be served by the existing and future water supplies identified in the analysis completed for the WSA, and also in the Draft 2010 UWMP, which evaluate anticipated cumulative water demand against existing and planned supply and determined a sufficient water supply (including groundwater pumping that would not result in long-term depletion of groundwater resources) is available to serve anticipated demand, including the proposed Project.

Accordingly, the cumulative impacts are analyzed in terms of impacts to water supplies and facilities operated by the City's of Banning along with impacts to other water users. The

analysis considers the significance of the contribution of the proposed Project to cumulative regional impacts on water supplies resulting from the increase in water demand generated by the Project.

The WSA (Appendix J) projects the City of Banning annual water demand will be 16,710 acre-feet in 2045. The WSA determined that the City's service area will have sufficient existing and planned supplies to meet 100 percent of the projected demand through 2045, under a normal hydrologic year, single dry hydrologic year, and a series of multiple dry years. When comparing supply and demand under the defined water years, the WSA concludes that the City is projected to maintain 100-percent water service reliability under each type of water year. The WSA also finds that the region is continuing to improve its water reliability by designing programs to protect and ensure water quality, maximize local supplies, promote conservation, encourage recycled water use, and meet its demands during shortages.

The WSA completed reliability analyses for each of the 5-year projection periods from 2015 through 2045 for imported water supply and projects that up to 25 percent of all Table "A" entitlement made available by the Pass Agency to its retailers will be available for purchase by the City.

The Pass Agency's SWP entitlement is not guaranteed every year due to climatic variability, environmental concerns and increasing demands for SWP delivery. The Pass Agency application provides that "due to the annual variable nature of the Pass Agency water supply, Pass Agency water deliveries do not constitute a vested right to a fixed amount of Pass Agency water each year or to any specific level of pressure." Further, Pass Agency water deliveries are "subject to all of the terms and conditions of Pass Agency's SWP contract with DWR, including delivery interruption by reason of DWR and/or Pass Agency's requirements for maintenance and operation of its facilities or by reason of demand by Purchasers in excess of Pass Agency's Table 'A' amount." DWR projects that the Table "A" water supplies will be 60 percent reliable, on average, in the future. To date, the City has received above and beyond its full requested amount each year.

The City does not rely on imported water supplies alone – it also has groundwater (from 5 separate Basins), surface water, and by 2015, recycled water, supplies. Further, the City conjunctively manages its groundwater and imported water supplies and therefore does not take direct delivery of imported water. As such, annual fluctuations in the delivery of imported water do not directly affect the reliability of the City's water supply. The City's water supply projections take into account the projected future reliability of imported water supplies. The City assumes that only 25 percent of 60 percent of the Pass Agency's Table "A" supply will be available to the City for purchase.

In terms of groundwater supplies, the City can pump all surplus water in the Banning Basins up to their safe yield given the City is the only major pumper. Pumping from the Beaumont Basin

is subject to Watermaster rules and the Basin adjudication. The City's projected pumping from the Cabazon Basin is based on the City's estimates of surplus water available for development by the City, including the City's wastewater flows recharged into the Basin. Periodically, the City evaluates hydrologic conditions in the basins, including groundwater levels and amount of groundwater in storage. The City's water supply reliability depends upon local groundwater supplies and the reliability of imported water from the Pass Agency.

The City's Water Shortage Contingency Plan in the Draft 2010 UWMP addresses how the agency will meet water demands during water shortages. The purpose of the Water Shortage Contingency Plan is to provide a plan to be followed during the various stages of a water shortage. The Water Shortage Contingency Plan includes the following elements: action stages, estimate of minimum supply available, actions to be implemented during a catastrophic interruption of water supplies, prohibitions, penalties and consumption reduction methods, revenue impacts of reduced sales, a draft water shortage contingency resolution, and water use monitoring procedures.

Assessment of individual projects for impacts to the local and regional water supply system will continue to occur as part of the standard project planning process. This will ensure projects would only be approved if adequate water supplies exist at the time of their implementation. Therefore, cumulative impacts to water supply would be less than significant in this regard.

While the Project's increased water demand would represent a significant increase compared to current conditions, the WSA has determined that the incremental demand generated by this Project would not be cumulatively considerable and would be less than significant.

Climate Change

Under climate change and in some years, water levels in California's main supply reservoirs (Shasta, Oroville, Folsom, and Trinity) could fall below the lowest release outlets making the system vulnerable to operational interruption. By mid-century, it is expected that a water shortage worse than the 1977 drought could occur in one out of every six to eight years. In those years, it is estimated that an additional 575-850 thousand AF of water would be needed to meet current regulatory requirements and to maintain minimum system operations. DWR concluded that this water could be obtained through additional water supplies, reductions in water demands, or a combination of the two. For current conditions, the DWR 2009 SWP Reliability Report concludes the system is not considered vulnerable to this type of operational interruption.

The City's reliability analysis for imported water (Section 6.3 of the WSA, Appendix J) applies DWR's reliability analysis for future conditions and therefore already accounts for the potential impacts of climate change on the availability of the City's imported water supply, as predicted by DWR. As such, no further analysis is required.

While climate change is likely to have some impact on the City's groundwater supplies on a long-term basis, the direction and magnitude of that impact is unknown to the scientific community. Compared to surface water supplies, groundwater is likely to be more reliable in the face of climate change.

In light of these conclusions, both governmental agencies and non-governmental organizations recommend that water decision-makers operate existing water systems to allow for increased flexibility. Other recommendations include incorporating climate change research into infrastructure design, conjunctively managing surface water and groundwater supplies, and integrating water and land use practices. In order to address the potential impacts of climate change, the City will implement Mitigation Measure WS-2. With implementation of WS-2, less than significant impacts are anticipated.

Mitigation Measures

The following mitigation measure will reduce potentially significant impacts associated with climate change to less than significant levels. In addition, the Project has reduced, avoided or offset potentially adverse impacts to water supply through Project Design Features noted above (all of which are summarized in Section 3.8, *Project Design Features*):

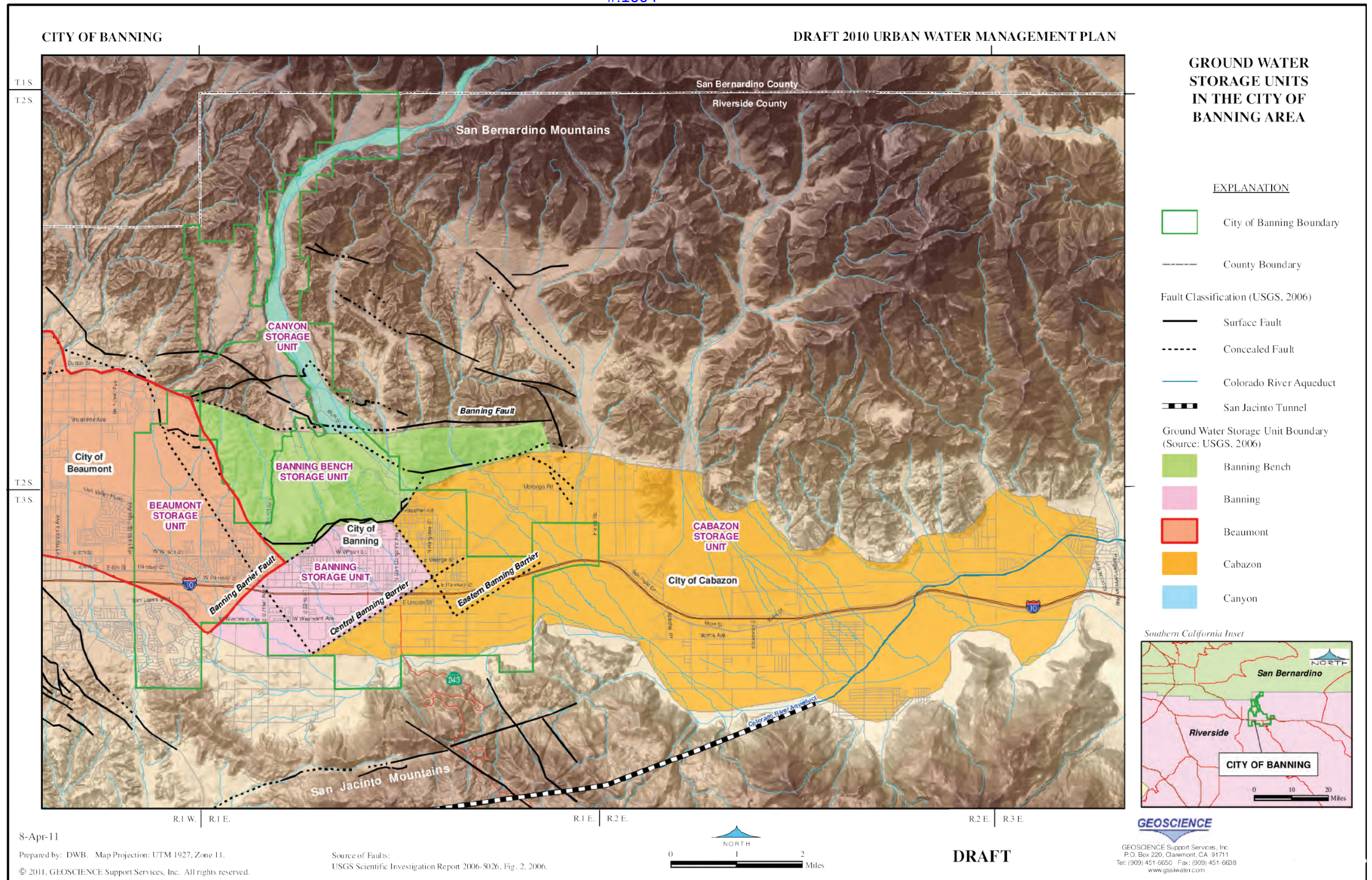
WS-2: Additionally, to guard against the potential adverse effects of climate change on the City's water supplies, the City will:

1. Continue to manage its imported and surface water supplies conjunctively with its groundwater supplies to maximize opportunities for groundwater storage.
2. Continue to monitor expert technical analyses of the impacts of climate change on surface and groundwater supplies and incorporate any recommendations into the City's water supply planning efforts.
3. Continue to practice and promote integrated flood management. The City will incorporate climate change findings into infrastructure design and continue to integrate water and land use practices, such as encouraging new developments to capture and treat stormwater onsite. New water infrastructure will be designed to operate under a wide range of conditions and will consider climate change impacts.
4. Continue to diversify its portfolio through increased water use efficiency and aggressive demand reductions achieved by existing and new conservation programs. The development and use of a new recycled water supply will further diversity the City's portfolio and reduce potable water demands.

5. Continue to further develop regional alliances with cities, water districts and water agencies to integrate, improve and develop regional water management.

4.14.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The impact of the proposed Project on water supply would be less than significant after mitigation measures are incorporated.



SOURCE: City of Banning, Draft 2010 Urban Water Management Plan, May 2011



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SECTION 5.0

LONG TERM IMPLICATIONS

5.1 INTRODUCTION

Section 15126, *Consideration and Discussion of Environmental Effects*, of the CEQA Guidelines requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development and operation. As part of this analysis, the EIR must also identify: (1) significant environmental effects of the proposed Project; (2) significant environmental effects that cannot be avoided if the proposed Project is implemented; (3) significant irreversible environmental changes that would result from implementation of the proposed Project; (4) growth-inducing impacts of the proposed Project; (5) mitigation measures proposed to minimize significant effects; and (6) alternatives to the proposed Project.

Section 5.0 addresses growth inducing effects of the proposed Project; identifies the significant and unavoidable adverse impacts of the Project, as well as those identified in the General Plan EIR; identifies significant irreversible environment effects; and addresses the Mandatory Findings of Significance as required by the *Guidelines*. Alternatives to the proposed Project are addressed in Section 6.0 (*Alternatives to the Proposed Project*). Effects Found not to be Significant are addressed in Section 7.0 of this EIR.

5.2 SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

Section 15126.2(a), *Consideration and Discussion of Significant Environmental Impacts*, of the *Guidelines* requires an EIR to identify and focus on the significant environmental effects of the proposed Project, including direct and indirect effects, short- and long-term effects, and any significant environmental effects the project might cause by bringing development and people into the area affected. Table ES – 1, *Summary of Environmental Effects and Mitigation Measures*, located in the Executive Summary, summarizes the environmental effects of the Project based on the topical headings and thresholds contained in Appendix G of the *Guidelines*. Sections 4.1 through 4.14 of this EIR provide a comprehensive identification and analysis of the Project's direct and indirect environmental effects, including the level of significance before and after mitigation in both the project and cumulative setting.

5.3 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

Section 15126.2(b), *Significant Environmental Effects which Cannot Be Avoided if the Proposed Project is Implemented*, requires an EIR to describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. The evaluation of the environmental issues identified throughout all of the subsections of Sections 4.0, *Environmental Impact Analysis*,

concluded that the following significant and unavoidable Project-related and/or cumulative impacts would occur if the *Butterfield Specific Plan Project* is implemented as currently proposed:

NOTE: Each of the following unavoidable impacts would occur as a result of implementing the previously approved Deutsch Specific Plan that would build out under the existing General Plan. The Project is consistent with the General Plan, and project-related and cumulative impacts have been addressed at a programmatic level in the General Plan EIR.

Aesthetics, Light and Glare

- The Project will introduce significant sources of light and glare into an existing rural, undeveloped area and result in a significant and unavoidable adverse impact on nighttime views of the Project site in the interim and long-term build-out condition. Mitigation measures can reduce these impacts but would not reduce them to a level of insignificance due to the nature, size, and scale of the proposed project and its cumulative significance. (Project/Cumulative)

Air Quality

- Construction phase emissions from Project development would exceed the SCAQMD thresholds for ROG, NO_x, CO, PM₁₀, and PM_{2.5}, resulting in a significant impact. Mitigation measures can reduce the level of these emissions but cannot reduce them below SCAQMD thresholds due to the size and scope of the proposed Project. (Project)
- The operational phase of the Project would conflict with the AQMP as would exceed SCAQMD thresholds for ROG, NO_x, CO, PM₁₀, and PM_{2.5}, and the Project would potentially result in a long-term impact on the region's ability to meet State and federal Ambient Air Quality Standards. Mitigation measures can reduce the level of these emissions but cannot reduce them below SCAQMD thresholds. (Project/Cumulative)

Climate Change/Greenhouse Gases

- Although the Project has incorporated reasonable and feasible mitigation measures the Project's incremental contribution to global climate change can be considered "significant" on a cumulatively considerable basis. Although implementation of these mitigation measures would reduce the proposed Project's greenhouse gas emissions, such project-specific mitigation may not be feasibly imposed upon cumulative projects. (Project/Cumulative).

Noise

- At build out the Project would exceed both the combined and incremental effects criteria for mobile noise impacts. The proposed Project, in combination with cumulative background traffic noise levels, would result in a cumulatively significant impact that cannot be mitigated to a level of insignificance due to the project's size and scale. The Project cannot reasonably or feasibly mitigate for cumulative mobile noise impacts (e.g., constructing sound walls along the entire perimeter of the sensitive uses surrounding the project site, force existing residential uses to change their existing windows, etc.). (Cumulative).

Traffic and Transportation

- Increased traffic volumes resulting in 7 intersections that would exceed General Plan level of service policy of "C" or better. The Project Traffic Impact Assessment identifies mitigation for all Project-related and cumulative impacts in order to achieve acceptable levels of service. However, certain improvements required to mitigate project impacts to a less than significant level are either outside the control of the City of Banning (and therefore cannot be assured of implementation) and/or have substantial right-of-way constraints (and therefore may not be fully implemented due to feasibility issues). Although the Project will be responsible for implementing all feasible Project-related improvements and will pay its fair share of the cost of implementing cumulative impact improvements, there is no assurance at this time that the City and other jurisdictions will have adequate funding to implement ultimate improvements. (Project/Cumulative).

5.4 POTENTIAL GENERAL PLAN BUILDOUT SIGNIFICANT AND UNAVOIDABLE IMPACTS

In addition to the above identified significant and unavoidable adverse impacts, Section IV of the City's Comprehensive General Plan EIR identifies five significant and unavoidable adverse impacts associated with the build out of the General Plan as adopted (bolded below). The Project's potential contribution to these impacts is assessed below:

Short-term and long-term air quality impacts due to construction and operation, respectively:
This has been identified as a significant and unavoidable adverse impact in this EIR.

Cumulative loss of biological resources including destruction and fragmentation of habitat:
The Project's biological resource impacts are mitigated to a less than significant level.

Exposure of people to geotechnical hazards associated with area faulting and earthquake-related hazards: The Project site is traversed by segments of the Banning fault and contains other identified, related faulting; however, these hazards are not considered significant because the proposed Project includes setbacks of 50 to 100 feet or more from identified active faults, is not subject to liquefaction, dam inundation, and can fully mitigate for settlement.

Increased traffic volumes resulting in 7 intersections that would exceed General Plan level of service policy of LOS C or better: The EIR identifies mitigation for all Project impacts. However, as noted above, due to control by other jurisdictions, feasibility and/or funding issues, certain improvements may not be fully implemented, resulting in a potentially significant unavoidable impact.

Increased consumption would contribute to existing overdraft of area groundwater resources: As discussed in Section 4.14, *Water Supply*, the Project's groundwater and water supply impacts are mitigated to less than significant levels. The Project would not result in overdraft of groundwater supplies, because the City's existing and projected water supplies are sufficient during normal, single dry, and multiple dry water years during the 35-year study period to meet the projected water demands of the Project, in addition to the City's existing and planned future uses.

5.5 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the State CEQA Guidelines requires that an EIR discuss any significant irreversible environmental changes which would be caused by the proposed Project should it be implemented. Such changes are identified and analyzed in Sections 4.1 through 4.14 of this EIR. Pursuant to the analysis required by this section, the Project would result in the following significant, irreversible environmental changes:

- The Project would involve a large commitment of nonrenewable resources
- The primary and secondary impacts of the Project would generally commit future generations to similar uses.

The proposed Butterfield Specific Plan is an amendment and restatement of the existing, approved Deutsch Specific Plan. Its direct effects would include changes in existing and some proposed land uses; conversion of open space and grazing land to urban uses; population and job growth; and cumulatively significant increases in air quality, noise, and traffic impacts. Project impacts are addressed in detail in Sections 4.1 through 4.14 of this EIR.

Resources that would be permanently and continually consumed by the proposed development would include water, electricity, natural gas, and fossil fuels. However, new construction in California is required to conform to energy conservation standards specified in Title 24 of the

California Code of Regulations (CCR), as amended in 2010 (effective date: January 1, 2011). These standards establish “energy budgets” for different types of residential and non-residential buildings with which all new buildings must comply. In order to conform to CCR Title 24, efficient energy use would be designed into all new buildings developed within the Project area. In addition, all new development would be required to comply with all applicable building codes, development standards, and design requirements related to sustainability and energy conservation contained in the City’s *Municipal Code* and required pursuant to current and future State legislation, executive orders, and regulatory guidance. City policy, State standards, and mitigation measures contained in the General Plan EIR and in this EIR would help ensure that all natural resources are conserved or recycled to the maximum extent feasible. Energy consumption is discussed in greater detail within Section 4.5, *Climate Change* and Section 4.12, *Public Services and Utilities*.

The proposed Project has an estimated 30-year implementation time frame in the course of which new technologies and/or systems to improve sustainability and reduce resource consumption would likely emerge or become more cost-effective and/or user-friendly. Since development of the Project area will occur incrementally, as individual tracts are recorded and projects pursued, these new technologies could be incorporated into the development, further reducing resource consumption and improving sustainability. This being said, even with the implementation of conservation measures and the utilization of advancing technology, consumption of natural resources would generally increase with the implementation of the Project.

Construction activities associated with the development of the Project area would result in the irretrievable commitment of nonrenewable resources, primarily in the form of fossil fuels (such as natural gas, diesel, and gasoline for automobiles and construction equipment), sand, gravel, wood and related construction materials. These may be considered a permanent investment and commitment of resources to the Project’s development.

In addition, long-term increase in the demand for electrical and natural gas resources would occur. Use of these fossil fuel-derived energy sources would be necessary for transport of workers and materials during construction and provision of electricity and natural gas for the new homes, businesses and infrastructure during the life of the project. Although the consumption of fossil fuel, sand, gravel, wood, and construction materials associated with the proposed Project would constitute the depletion of a resource that is irretrievable and irreversible, the amount of resources consumed would not be of an extraordinary nature in a regional context.

In addition, the proposed Project would be justified, because it would use those resources to increase housing opportunities affordable to a range of potential residents, provide employment opportunities, increase recreational opportunities, and contribute to the economic and social wellbeing of the community. As such, the Project would contribute to the

achievement of the policy goals specified in the City of Banning General Plan (refer to Economic Development Goal, p. III-41, and Policy 5, pg. III-43, which encourage the provision of a range of housing opportunities; and Parks and Recreation Element Goal 1 and 2, pg. III-96, which encourage the provision of high-quality recreational facilities) and the 2008 Housing Element of the General Plan (refer to Objective 1, Policy 1¹). Therefore, the development of the Project site pursuant to the Butterfield Specific Plan would not involve a wasteful or unjustifiable use of energy or other resources and the use of energy in the Project area would occur in an efficient manner consistent with the goals, policies and objectives of the City of Banning General Plan.

5.6 MANDATORY FINDINGS OF SIGNIFICANCE

CEQA requires preparation of an EIR when certain specified impacts may result from construction or implementation of a project. An EIR has been prepared for the proposed Project, which fully addresses all of the Mandatory Findings of Significance, as described below.

Degradation of the Environment

Section 15065(a) of the CEQA *Guidelines* requires a finding of significance if a project, “has the potential to substantially degrade the quality of the environment.” In practice, this is the same standard as a significant effect on the environment, which is defined in Section 15382 of the *Guidelines* as, “a substantial or potentially adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”

This EIR in its entirety addresses and discloses all known potential environmental effects associated with the development of the proposed Project both on- and offsite at a programmatic level of analysis, including direct, indirect, and cumulative impacts in the following resource areas:

Aesthetics, Light, and Glare
Air Quality
Climate Change
Geology and Soils
Hydrology and Water Quality
Noise
Transportation and Traffic

Agriculture and Forestry
Biological Resources
Cultural Resources
Hazards/Hazardous Materials
Land Use and Planning
Public Services, Recreation, and Utilities
Water Supply

As summarized in Table ES-1, *Summary of Environmental Effects and Project Mitigation Measures*, this EIR discloses all potential environmental impacts, the level of significance prior to

¹ City of Banning, *Housing Element of the General Plan*, pg. III-197, December 2008. Document is available at <http://www.ci.banning.ca.us/DocumentView.aspx?DID=614>.

mitigation, project requirements that are required by law, feasible mitigation measures, and the level of significance after the incorporation of mitigation measures.

Long Term Impacts

Section 15065(a)(2) of the *Guidelines* states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. Section 5.4, *Significant Irreversible Environmental Effects*, of this document addresses the short-term and irretrievable commitment of natural resources to ensure that the consumption is justified on a long-term basis. In addition, Section 5.3, *Significant and Unavoidable Adverse Impacts*, and Table ES-1 identify all significant and unavoidable impacts that could occur that would result in a long-term impact on the environment. Lastly, Section 5.6, *Growth Inducing Impacts*, identifies any long-term environmental impacts associated with economic and population growth that are associated with the proposed Project.

Cumulative Impacts

Section 15065 of the *Guidelines* states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects that are individually limited but cumulatively considerable. As defined in Section 15065(a)(3) of the *Guidelines*, cumulatively considerable means that “the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” This EIR provides a cumulative impact analysis only for those thresholds that result in a less than significant impact, a potentially significant impact unless mitigated, or a significant and unavoidable impact. Cumulative impacts are addressed for each of the environmental topics listed above and are provided in Sections 4.1 through 4.14 of this EIR.

Impacts on Species

Section 15065(a) (1) of the *Guidelines* states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to: (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number or restrict the range of an endangered, rare, or threatened species. Section 4.4, *Biological Resources*, of this EIR fully addresses any impacts that might relate to the reduction of fish or wildlife habitat or populations and the reduction or restriction of the range of special status species as a result of Project implementation.

Impacts on Historical Resources

Section 15065(a) (1) of the *Guidelines* states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to eliminate important examples of a major period of California history or prehistory. Section 15065(a) (1) reflects PRC § 21001(c) by requiring preservation of resources that represent major periods of California history for the benefit of future generations. It also reflects the provisions of PRC § 21084.1 in requiring a finding of significance for substantial adverse changes to historical resources. Section 15064.5 of the *Guidelines* establishes standards for determining the significance of impacts to historical resources and archaeological sites that are an historic resource. Section 4.6, *Cultural and Historic Resources*, of this EIR fully addresses impacts related to California history and prehistory, historic resources, archaeological resources and paleontological resources.

Impacts on Human Beings

As required by Section 15065(a)(4) of the *Guidelines*, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significantly affected. This standard relates to adverse changes to the environment of human beings generally, and not to effects ON particular individuals. While changes to the environment that could directly or indirectly affect human beings would be possible in all of the CEQA issue areas previously listed, those that could directly affect human beings include aesthetics, air quality, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, land use and planning, public services and utilities, transportation/traffic, water resources, and climate change, all of which are addressed in the appropriate sections of this EIR; refer to Table of Contents for specific section numbers.

5.7 GROWTH-INDUCING IMPACTS OF THE PROPOSED ACTION

State CEQA Guidelines

Section 15126 of the *CEQA Guidelines* requires that an EIR address the “growth inducing” effects of the proposed Project. Pursuant to Section 15126.2(d) of the *Guidelines*, a project would be considered to have a growth-inducing effect if it would:

- Directly or indirectly foster economic or population growth, or the construction of additional housing;

- Remove obstacles to population growth;
- Tax existing community services or facilities, requiring the construction of new facilities that could cause significant environmental effects; or
- Encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

This section of the EIR analyzes the potential environmental consequences of the foreseeable growth that could be induced by implementation of the proposed Project. Section 15126.2(d) states that: "It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment." Typically, the growth-inducing potential of the Project would be considered significant if: "[The project] fosters growth or a concentration of population above what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as the Southern California Association of Governments (SCAG). Significant growth impacts could also occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies." In general, a project may foster growth in a geographic area if it meets any one of the following criteria:

1. Removes an impediment to growth (e.g., establish an essential public service or provide new access to an area);
2. Foster economic expansion or growth (e.g., change revenue base, expand employment, etc.);
3. Fosters population growth (e.g., construct additional housing), either directly or indirectly;
4. Establishes a precedent-setting action (e.g., an innovation, a change in zoning, or a general plan amendment approval); or
5. Develops or encroaches on an isolated or adjacent area of open space (distinct from an "infill" type of project).

Should the Project meet any one of the above-listed criteria, it may be considered growth inducing. The potential growth-inducing impacts of the proposed Project are evaluated against these five criteria in this section.

Section 15126.2(d) of the *CEQA Guidelines* requires that an EIR "discuss the ways" a project could be growth inducing and to, "discuss the characteristics of some projects that may encourage...activities that could significantly affect the environment." However, the *Guidelines* do not require that an EIR predict (or speculate) specifically where such growth would occur, in what form it would occur, or when it would occur.

The analysis provided below evaluates whether the proposed project would directly, or indirectly, induce population, housing, or economic growth in the surrounding environment.

5.7.1 DIRECT GROWTH-INDUCTING IMPACTS IN THE SURROUNDING ENVIRONMENT

A project would directly induce growth if it would remove barriers to population growth such as a change to a jurisdiction's General Plan and Zoning Ordinance which allowed new residential development to occur. The proposed project would be developed through an amendment to the existing Deutsch Specific Plan which provides for new development.

Population Growth

Population, housing, and employment data are available on a City, county, regional, and state level. In its comment letter on an NOP for the Butterfield Specific Plan Project, the Southern California Association of Governments (SCAG) dated October 8, 2007, SCAG provide City, sub-regional (WRCOG) and City growth forecasts derived from the 2004 RTP, carried through 2030. Since that time, SCAG has adopted the 2008 RTP, which updated the 2004 projections using a 2007 baseline, and is presently gathering data for the 2012 RTP update. To ensure that the most current numbers are used for this analysis, the SCAG 2008 RTP Growth Forecasts through 2035 are provided in Table 5.7-1 (*SCAG Population, Housing & Employment Forecasts*).

Current (2010) population and housing estimates are also derived from the State Department of Finance (DOF), which updates its population and housing numbers on an annual basis from a year 2000 baseline. These are presented in Table 5.7-2 (*City of Banning Population Growth 2000 - 2010 – State Department of Finance*).

In addition, this section references forecasts provided in 2010 to SCAG by the City of Banning and WRCOG as part of preparation process for the 2012 update of the Regional Transportation Plan (RTP). These are presented in Tables 5.7-3 (*2010 WRCOG Long-range Growth Forecast For 2012 RTP*) and 5.7-4 (*SCAG – Local Input – General Plan Forecasts for 2012 RTP-City of Banning*). Additional growth forecasts for the City of Banning from 2000 through 2030 are contained in *Western Riverside County, a Collection of Profiles, Indicators and Maps*, published by WRCOB in May 2006.

The DOF prepares annual estimates of population and housing based on an analysis of data from a variety of sources. According to the 2010 DOF report, the City of Banning had a population of approximately 28,751 in 2010; refer to Table 5.0-1, *City of Banning Population Growth 2000-2010 – State Department of Finance*. Since the population data provided by the DOF are computed and updated annually, it is considered more reflective of current conditions than the population forecasts contained in the 2008 SCAG Regional Transportation Plan (RTP) Growth Forecast. For this reason, DOF data will be used in the analysis to provide existing conditions, where it is available.

The 2008 RTP growth forecast reflects a period of accelerated regional growth that subsequently slowed dramatically as the recession of 2008-2009 impacted the sub-region. The recession of 2008-2009 resulted in a dramatic slowing of population, housing, and economic growth the Inland Empire and accounts for some of the differences between the projected population, housing and employment forecasts in 2008 RTP and subsequent forecasts from the City of Banning, WRCOG, and the Department of Finance (DOF). In addition, Banning's growth reached its pre-recession peak in 2004, dropped dramatically thereafter, and has consistently lagged behind the County growth rate (2000-2008) of 35.2 percent.

The City's 2010 population (City limits only) is currently estimated by DOF as approximately 28,751, which is considerably lower (15%) than the 2008 SCAG forecast of 33,951. It is also somewhat lower than the 2010 WRCOG forecast of 29,710, but well within range of the City's General Plan estimate.

SCAG is currently gathering data for the preparation of the 2012 RTP update. Table 5.7-3, *2010 WRCOG Long-range Growth Forecast For 2012 RTP*, and Table 5.7-4, *SCAG – Local Input – General Plan Forecasts for 2012 RTP* (both for the City of Banning) provide population forecasts reflective of current and anticipated growth rates through 2035. As indicated in Table 5.7-4, by 2020 the City's General Plan population estimate of 42,188 is fairly consistent with WRCOG's forecast shown in Table 5.7-3, but well below the 2008 SCAG forecast of 52,591 in Table 5.7-1. The 2035 Banning General Plan population forecast of 61,733 is also well below the 2008 SCAG forecast of 77,438, but consistent with the 2010 WRCOG forecast. Given the differences between the various sources of data and the uneven and unpredictable impact of post-recession economic recovery regionally and locally, all currently available population forecasts should be regarded only as potential trend indicators.

Table 5.7-1
SCAG Population, Housing & Employment Forecasts

	2010	2015	2020	2025	2030	2035
Banning						
Population	33,951	45,029	52,591	63,660	74,686	77,435
Households	12,536	14,616	17,127	20,197	22,794	24,668
Employment	10,018	12,871	15,810	18,751	21,726	24,122
Adopted Western Riverside County Association of Governments (WRCOG)*						
Population	1,608,241	1,673,500	2,002,393	2,175,633	2,344,972	2,460,833
Households	572,666	632,589	696,379	755,536	814,161	865,277
Employment	541,587	633,161	703,372	822,031	918,640	967,163
Riverside County						
Population	2,242,745	2,509,330	2,809,003	3,089,999	3,343,777	3,596,680
Households	720,531	811,486	913,207	1,008,909	1,097,950	1,183,097
Employment	784,998	911,381	1,042,145	1,168,769	1,295,487	1,413,522
SCAG Region						
Population	19,418,344	20,465,830	21,468,948	22,395,121	23,255,377	24,057,286
Households	6,086,986	6,474,074	6,840,328	7,156,645	7,449,484	7,710,722
Employment	8,349,453	8,811,406	9,183,029	9,546,773	9,913,376	10,287,125
Source: SCAG 2008 Regional Transportation Plan Growth Forecast						
* WRCOG Projections for Population, Housing and Employment Updated as of 4/8/10 by Riverside County Center for Demographic Research (2020 and 2035)						

Table 5.7-2
City of Banning Population Growth 2000 - 2010 – State Department of Finance

Year	1980	1990	2000	2007	2008	2009 (E)	2010 (E)
Population	14,020	20,570	23,562	28,293	28,348	28,551(E)	28,751(E)
*1980-2008 are based on US Census Data and SCAG Data from the Profile of the City of Banning document. 2009-2010 population was gathered from State of California, Dept. of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2001-2010, with 2000 Benchmark. Sacramento, CA, May 2010.							

Table 5.7-3
2010 WRCOG Long-Range Growth Forecast for 2012 RTP
City of Banning

	2010	2015	2020	2025	2030	2035
Population	29,710	35,648	42,193	50,025	56,885	61,930
Households	12,884	14,611	17,260	20,416	23,177	25,202
Employment			11,206			16,593
Source: WRCOG Long-range Growth Forecast Updated as of 4/8/10 by Riverside Center for Demographic Research						

Table 5.7-4
SCAG – Local Input – General Plan Forecasts for 2012 RTP
City of Banning

	2008	2020	2035
Population	28,303	42,188	61,733
Households	10,638	15,842	23,155
Employment	7801	11,206	16,593
Source: SCAG 2012 Local Input (General Plan) Forecasts for 2012 RTP			

The proposed Project, when implemented, would directly induce population growth in the City and the region through the development of 5,387 new homes and apartments and approximately 36 acres of commercial space. Utilizing an average of 2.66² persons per household, the development of 5,387 additional housing units could result in a total population increase of approximately 14,167 persons.

This population growth would occur unevenly over a period of approximately 30 years, extending from 2012 through 2042. The speed and impact of that growth would be determined by market demand and absorption rates that cannot be predicted at this time. Additional population growth may be attributed to temporary employment generated by the Project's construction and subsequent permanent employment generated by the Project's commercial component, schools, and golf course as well as the impact of new residents on the overall economy of the area and their demand for services.

As noted, it would be speculative to estimate Project contributions to City population on an annual or even 5-year incremental basis; however, it is important to note that the City's current Comprehensive General Plan and its Housing Element, as well as the prior City General Plan, included the projected build out of the Project (as the Deutsch Specific Plan) in estimating population growth in the City, and this was and continues to be carried through in the County, sub-region, and regional forecasts, as illustrated by Tables 5.7-1 through 5.7-4.

At build out, the estimated Project-generated population would represent a 49.2% increase over the City's 2010 population as estimated by DOF, but would still result in a City population that is well within the forecasted population increase for the City of Banning projected to 2035, by the City's General Plan, the 2008 SCAG RTP growth projections, and the WRCOG 2010 long-term population forecasts through 2035.

Accordingly, while the projected population growth in the City of Banning attributable to the Project is large, the impact related to direct and indirect growth of population induced by the

² Source: State of California, Dept. of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2001-2010, with 2000 Benchmark. Sacramento, CA, May 2010.

Project would be considered less than significant because it would not conflict with adopted local and regional plans.

Housing

A household is defined by the DOF and the U.S. Census as a group of people who occupy a housing unit. The number of households in a give area differs from the number of dwelling units because the number of dwelling units counted includes both occupied and vacant units. According to 2010 DOF estimates there are currently approximately 11,644 housing units in the City of Banning. Table 5.7-5 (*City of Banning and County of Riverside Housing Characteristics, 2000-2010*³) is taken from DOF *Table E-5 City/County Population and Housing Estimates, 1/1/2010* and details housing currently available in the City.

The number of households in the City varies by forecast: both the 2008 SCAG RTP and 2010 WRCOG Long-range Growth Forecast foresee a need for 25,202 housing units by 2035, while the City General Plan input to SCAG in 2010 anticipates a somewhat lower 23,155. The approximately 5,387 housing units added to the City's housing inventory by the proposed Project at its build out would represent approximately 23 percent of the total City housing stock projected for 2035, assuming that the Project was built out at that time (approximately 7 years prior to current projections) and approximately 47 percent of the total increase in City housing stock. In both cases, the addition of the housing proposed by the Project would not result in an exceedence of or conflict with any local, WRCOG, or SCAG plan projections. The potential housing demand attributable to employment-related population can easily be absorbed by the proposed Project.

Table 5.7-5
City of Banning and County of Riverside Housing Characteristics, 2000-2010⁴

Banning						
	2000		2005		2010	
Housing type	Number of Units	Percent Total	Number of Units	Percent Total	Number of Units	Percent Total
Single Detached	6,847	70.1%	8,459	74.5%	8,740	75.0%
Single Attached	728	7.5%	728	6.4%	728	6.3%
Multi-Family 2-4 Units	426	4.4%	421	3.7%	424	3.6%
Multi-Family 5+ Units	604	6.2%	595	5.2%	595	5.1%
Mobile Homes	1,156	11.8%	1,156	10.2%	1,157	10.0%
Total	9,761		11,359		11,644	

³ State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2010, with 2000 Benchmark. Sacramento, California, May 2010.

⁴ State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2010, with 2000 Benchmark. Sacramento, California, May 2010.

Table 5.7-5 (continued)
City of Banning and County of Riverside Housing Characteristics, 2000-2010⁵

Riverside County						
	2000		2005		2010	
Housing Type	Number of Units	Percent Total	Number of Units	Percent Total	Number of Units	Percent Total
Single Detached	356,451	61.0%	448,632	65.0%	524,172	66.8%
Single Attached	42,301	7.2%	42,659	6.2%	44,844	5.7%
Multi-Family 2-4 Units	30,192	5.2%	31,332	4.5%	33,243	4.2%
Multi-Family 5+ Units	72,842	12.5%	83,714	12.1%	96,377	12.2%
Mobile Homes	82,888	14.2%	83,529	12.1%	85,721	11.0%
Total	584,674		689,866		784,357	

The Regional Housing Needs Assessment (RHNA) is the process SCAG utilizes to track the housing opportunities within its jurisdiction. The RHNA determines the development capacity each local government must identify and zone for during the housing element planning period; provides a policy-based projection of household growth, with vacancy and replacement housing allowances; and addresses the housing needs of all income groups resulting from population and employment growth and change (e.g., a “fair share” plan). Based on projected population growth and availability of land uses, SCAG assigns each jurisdiction its “fair share” target for how much housing is expected to be added during a specified time period. Each jurisdiction is expected to make a good-faith effort to meet its assigned housing target, or face the possibility of becoming ineligible for various federal and state revenues.

The affordability distribution of new units is derived from the household income distribution of households in Riverside County in 2000, plus a fair share adjustment determined by SCAG. For the City of Banning, the 2008-2014 SCAG RHNA established an affordable housing (i.e., units affordable to low and very low income households) percentage goal of 38.8% of the 3,841 housing units projected for the City during this timeframe. Table 5.7-6, *Quantified Housing Objectives for the City of Banning- 2008-2014*, summarizes the forecasted housing need by income group for 2008-2014, while Table 5.7-7, *RHNA Allocation of Housing Units for City of Banning from the Final RHNA Plan- Planning Period of January 1, 2006 to June 30, 2014*, quantifies the City’s RHNA housing allocation for the same period by income group. It should be noted that the median home price in Banning is significantly lower than in much of Riverside County. In 2008, the median home price was \$167,000, or approximately \$93,000 less than the County’s median home price. Accordingly, housing is generally more affordable in Banning at all income levels than in the County as a whole.

The proposed Project includes 19 Low Density Residential Planning Areas, 19 Medium Density Planning Areas, and 3 High Density Planning Areas. This mix of housing is expected to result

⁵ State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2010, with 2000 Benchmark. Sacramento, California, May 2010.

BUTTERFIELD SPECIFIC PLAN
Draft Subsequent EIR

5.0 LONG TERM IMPLICATIONS

in the construction of up to 2,222 low density single family residential units, 1,960 medium density residential units, and approximately 1,205 high density multi-family residential units. Higher density housing could include units that are affordable to households over the full range of affordability classifications depending upon market rents, the availability of financing and the availability of rental subsidy certificates. The Specific Plan also allows for cluster development (higher density housing) as well as “active adult” communities, both of which provide for greater housing flexibility to respond to market conditions. Accordingly, implementation of the Project would be consistent with goals and policies of the City’s Housing Element and could assist the City in meeting its RHNA housing goals, as these evolve over the implementation period of the Project.

Table 5.7-6
Quantified Housing Objectives for the City of Banning – 2008-2014

	Very Low Income	Low Income	Moderate Income	Above Moderate Income	Total
Anticipated units to be constructed (Assisted and Market Rate)	873	618	705	1645	3,841
Housing units to be preserved	5	4	5	10	24
Housing units to be conserved	35	0	0	0	35
Percentage of households	22.7%	16.1%	18.4%	42.8%	100%

Table 5.7-7
**RHNA Allocation of Housing Units for City of Banning from the Final RHNA Plan-
Planning Period of January 1, 2006 to June 30, 2014**

Household Income Category	HUD Income Threshold for 4-Person Household Issued 4/2010	RHNA Goal	Percentage
Very Low	\$19,500 (extremely low) to \$32,500 (very low)	873	22.7%
Low	\$39,000 (60% AMI limits) to 52,000 (low income)	618	16.1%
Moderate	\$40,000 to \$56,880 per year	705	18.4%
Above Moderate	Greater than \$56,881 per year	1,645	42.8%
Total		3,841	

Source: HUD Income Limits 2010 for the Riverside/San Bernardino/Ontario MSA.⁸
http://www.huduser.org/portal/datasets/il/il2010/2010summary.odn?inputname=METRO40140M40140*Riverside-San+Bernardino-Ontario%2C+CA+MSA&selection_type=hmfa&year=2010, accessed 10/6/2010.
 Very low = less than 50% of adjusted area median income (AMI); low income = 50 – 80% of AMI; moderate income = 80-120% of AMI; above moderate income= over 120% ami.

⁸ SCAG RHNA Final Allocation Plan <<http://scag.ca.gov/housing/rhna/index.htm>, Final RHNA Allocation.

The availability of relatively low cost housing in the City could result in both direct and indirect inducements to growth both locally and regionally. The affordability of housing in the Inland Empire relative to adjacent coastal markets has been the engine driving regional growth for decades. Housing in Banning is affordable relative to other nearby Inland Empire markets that are prime locations for employment-generating warehousing, logistics, and trucking & shipping enterprises. The growth of housing opportunities in Banning may in the future provide workforce housing that supports and is supported by regional economic expansion and job growth.

Economic Expansion and Employment

In August 2010 the civilian labor force in the City of Banning totaled approximately 11,700 persons, of whom 9,700 were employed. The unemployment rate was 17.4 percent. According to the May 2009 *Profile of the City of Banning*, published by SCAG using a 2008 baseline, in 2008 total jobs in the City reached 7,804, about 13 percent higher than its 2003 level. During that same timeframe, manufacturing jobs decreased by 1 percent, construction jobs dipped below 2003 levels with a reduction of 31 percent between 2006 and 2008, retail jobs increased by a net of 21 percent, while professional and management jobs increased by 2 percent in spite of an overall decrease in employment between 2006 and 2008.

The largest percentage of the City's civilian labor force (24 percent) was employed in health care and education. The second largest concentration of the labor force (approximately 13 percent) was in manufacturing.

The updated General Plan increased the amount of acreage dedicated to commercial uses by 50 percent and decreased the amount of acreage dedicated to industrial uses by approximately 38 percent as compared to the 1993 General Plan, and makes no provision for the development of "heavy" industry. The 2006 General Plan estimates that at build-out there would be approximately 9,580,965 square feet of sales tax generating development in the City. Based on SCAG 2008 forecasts, approximately 24,122 jobs would be provided in the City by local commercial and industrial enterprises by 2035. More recent input by WRCOG and the City of Banning, contained in Tables 5.7-3 and 5.7-4, forecast approximately 16,593 local jobs by 2035.

Implementation of the proposed Project would result in significant new investment in the community, bringing with it a large number of new residents, new jobs in the construction and manufacturing sectors and new employment-boosting demands for retail, health, education, and related services. While initially exacerbating the existing jobs/housing imbalance in the community, the Project could ultimately serve to help encourage the growth of local employment-generating businesses. However, it is not possible at this time to quantify those economic benefits in either the long or short term.

Establishment of a Precedent-Setting Action

The *Butterfield Specific Plan* would be developed on 1,543 acres. This master-planned community would contain a maximum of approximately 5,387 dwelling units, 35.9 acres of commercial development, two elementary schools (totaling 22 acres), a total of 434.4 acres of open space including 49.7 acres of parks and 270.7 acres of golf course. Under the proposed Project, the plan would include offsite improvements (such as access roads, potable water, wastewater, and reclaimed water conveyance facilities). Since the proposed Project is an amendment to the existing Deutsch Specific Plan, and is generally consistent with the City's General Plan, it is not considered a precedent-setting action, and therefore would not be considered growth-inducing in this regard.

Encroachment on Open Space

The proposed Project would be developed on 1,543 acres of land currently used for grazing. In addition, the Project area is adjacent to undeveloped areas to the north and east owned by the Highland Springs Resort and Morongo Indian Reservation, respectively. These lands may be developed in the future; however, at this time there are no known development proposals for these properties. Since the current Project is currently located within the Deutsch Specific Plan area approved in 1993 and incorporated into the 2006 General Plan as "Specific Plan," it is not considered an encroachment on open space.

5.7.2 INDIRECT GROWTH-INDUCTING IMPACTS

Removal of an Impediment to Growth

A project would indirectly induce growth if it would increase the capacity of infrastructure in an area in which public services currently meet demand. Examples would be increasing capacity of a sewer treatment plant, or a roadway beyond that needed to meet existing demand.

The Project includes various onsite and offsite infrastructure improvements which may facilitate other development. These include:

- Onsite and regional transportation improvements including numerous roads and intersections throughout the local area, as well as implementing the Highland Home Road extension to Brookside Avenue;
- Improvements to the City's water supply system, potentially including an extension of State Water Project via a new pipeline from the PASS agency to the City of Banning, within the Butterfield Specific Plan. This is a SWP supply alternative (the preferred method would be to simply continue using the PASS agency's existing recharge facilities

and pump the water from existing City wells in the Beaumont Basin), and is addressed in the EIR only under the context of providing water supply for the Project;

- Improvements to the City's water conservation, wastewater treatment and reclaimed water systems, as identified in the Water Supply Assessment (Appendix J), in order to demonstrate adequate water supply to serve the City of Banning through 2045.

These improvements, taken together, could reduce impediments to growth by eliminating or reducing existing infrastructure constraints. However, these improvements would be generally consistent with the analysis and recommendations of the adopted Deutsch Banning Specific Plan, and are consistent with the City of Banning General Plan.

5.8 GROWTH INDUCING IMPACT CONCLUSION

The Butterfield Specific Plan proposes to update the Deutsch Specific Plan (approved in 1993). Since approval of this Specific Plan occurred nearly twenty years ago the general impacts of its development have been considered and incorporated into the recent City of Banning General Plan Update (2006) and into related regional, County and sub-regional plans and forecasts. In association with development of the Specific Plan, the Project will be providing various onsite and offsite infrastructure improvements that could remove impediments to growth and/or provide for additional capacity; however, with the exception of an optional onsite satellite waste treatment facility to generate recycled water for Project use, the infrastructure improvements both on and offsite were generally anticipated in the original Specific Plan and are included in the Master Plans for sewer, water and flood control as well as by the City's Comprehensive General Plan. The Project could also result in indirect housing demand and population growth, although it is anticipated that the Project could absorb housing demand generated indirectly through increased employment opportunities and demands for goods and services. Due to its size, its incremental implementation, its impact on infrastructure, and the potential direct and indirect population and economic growth associated with it, the Project, although consistent with the City's General Plan and regional plans, would be viewed as growth-inducing pursuant to CEQA.

Various benefits would accrue from growth directly and indirectly induced by the Project, which must be weighted against the potential adverse effects of growth in deciding whether to approve the Project. Inherent benefits of the Project include new investment in the community; provision of a greater range of housing opportunities; and the support that new residents would give to industrial and commercial development within the City that could produce new employment opportunities, contributing to the improvement of the region's current imbalance between employment and housing. Other possible benefits include increased property values; increased tax revenues generated from new homes and the businesses they attract; and improvements to public infrastructure. This potential Project-related economic expansion is consistent with the City of Banning General Plan and is a desired result of the Project. As such,

future growth associated with or caused by the Project would be considered necessary to implement the City's General Plan and to achieve the potential benefits associated with the Project. Therefore, the amount of Project-induced direct and indirect growth would not exceed what is presently allowed under the General Plan. Project and cumulative impacts are discussed further in Sections 4.0 through 4.14 of this EIR.

SECTION 6.0 ALTERNATIVES

6.1 INTRODUCTION

As discussed in Chapter 4.0, the proposed Project would have potentially significant impacts to agricultural resources; biological resources; cultural resources; geology, soils and seismicity; hydrology and water quality; land use and planning; noise; public services and utilities; and water supply; however, mitigation measures can be implemented to reduce these impacts to a level that is less than significant. As described below in Section 6.4, Significant and Unavoidable Impacts of the Proposed Project, significant and unavoidable impacts would occur with regard to aesthetics, light, and glare; air quality; hazards and hazardous materials (fire hazards in PA 60 and 61), noise (cumulative); traffic and transportation; water supply (cumulative); and climate change. The analysis below compares a range of alternatives to the proposed Project to evaluate whether impacts would be greater, lesser, or similar to those resulting with the proposed Project.

6.2 CEQA REQUIREMENTS

Section 15126.6(a) of the *CEQA Guidelines* requires that an EIR describe a range of reasonable alternatives to the Project, or a range of reasonable alternatives to the location of the Project, that could feasibly attain the basic objectives of the Project. An EIR does not need to consider every conceivable alternative project, but it does have to consider a range of potentially feasible alternatives that facilitate informed decision-making and public participation.

The range of feasible alternatives is selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives (as described in CEQA Section 15126.6(f)) are site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the proponent could reasonably acquire, control, or otherwise have access to the alternative site. An EIR need not consider an alternative if its effects cannot be reasonably identified, its implementation is remote or speculative, or if it would not achieve most of the basic project objectives.

In accordance with Section 15126.6(a) of the *CEQA Guidelines*, the discussion must focus on alternatives that would avoid or substantially reduce any significant effects of the Project, even if the alternatives would be more costly or hinder to some degree the attainment of the Project objectives. The “No Project” alternative must be evaluated and must discuss the existing conditions and what would reasonably be expected to occur in the foreseeable future if the Project is not approved.

The range of alternatives required is governed by a “rule of reason.” Thus, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives must be limited to only those that would avoid or substantially lessen any of the significant effects of the Project, or to only those locations that would avoid or substantially lessen the significant effects of the Project.

The alternatives identified below, with exception of the mandatory No Project Alternative, were selected due to their potential to at least partially meet most of the basic Project objectives, and to lessen or avoid significant environmental effects resulting from implementation of the proposed Project. A number of the more significant impacts of the proposed Project, such as traffic, air quality and noise, relate to the size of the Project, therefore, reducing the size of the Project within reason was an important criterion in the selection of alternatives.

The *CEQA Guidelines* also require an EIR to state why an alternative is being rejected. If the City of Banning ultimately rejects any or all Project alternatives, the rationale for rejection will be presented in the findings that are required before the City certifies the EIR and takes action on the proposed Project. According to Section 15126.6(f)(1) of the *CEQA Guidelines*, among the factors that may be taken into account when addressing feasibility of alternatives are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the applicant could reasonably acquire, control, or otherwise have access to the alternate site.

6.3 PROJECT OBJECTIVES

Section 15124(b) of the *CEQA Guidelines* indicates that an EIR should include “a statement of objectives sought by the proposed Project.” The Specific Plan was prepared to achieve the following Project objectives, which are also described in Section 3.6 of this Draft EIR:

1. **Master Planned Community:** Design and implement the development of a creatively-designed master planned community that expresses and embodies the City’s vision of its future as articulated in the fundamental land use principals, policies, and objectives of the City’s General Plan;
2. **Update the Deutsch Specific Plan:** Update the prior approved 1993 Deutsch Property Specific Plan based on current and projected market conditions while maintaining the Plan’s underlying concept of comprehensive and cohesive development planning that allows for the appropriate physical and economic development of the property;
3. **Provide a Quality, Livable Community:** Provide a quality, livable community through the implementation of a Specific Plan that will ensure a consistent quality of design, allow for the provision and maintenance of community amenities, and create a collection of cohesive, well-defined neighborhoods that provide residents with a clear sense of place and identity within the diverse fabric of the larger community;

4. **Provide a Wide Range of Housing Opportunities:** Provide a range of high quality housing opportunities by developing a diverse range of housing types available at a variety of price points, responsive to market demand, varying lifestyles, and the developing economic profile of the community;
5. **Promote Sustainability:** Promote the concept of sustainable community development by implementing green building practices in the selection of construction materials, the recycling of construction waste, and the use of energy and water efficient building practices;
6. **Incorporate Water and Energy Efficiency:** Incorporate energy and water efficient design and technology into the homes, commercial buildings, and landscape of the Butterfield development;
7. **Conserve Water Resources:** Conserve water resources and reduce demand for potable water within the Specific Plan area by maximizing the use of recycled water wherever appropriate, including the potential development of on-site recycled water treatment capacity, if needed;
8. **Increase Employment Opportunities:** Increase local job opportunities through the approximate 30 year build out;
9. **Ease of Navigation:** Create a community that is easy to navigate through careful use of landscape, signage, and entry design based on the Specific Plan's design objectives;
10. **Recreational Amenities:** Provide recreational amenities which will serve the needs of neighborhood residents and others in the City of Banning as well as nearby communities;
11. **Safe and Efficient Circulation:** Provide a safe and efficient roadway network, linking all internal elements of the planned community with the surrounding area;
12. **Encourage Alternative Transportation:** Encourage alternative transportation choices through the creation of a walkable community with well-defined pedestrian linkages between neighborhoods, amenities, schools, and commercial uses, the provision of bike paths, the creation of LSV/NEV linkages, and the development of multi-purpose trails;
13. **Promote Community Security:** Promote community security and safety through appropriate outdoor lighting, the incorporation of "defensible space" concepts in the design of multifamily developments, and by encouraging community involvement through the area's master homeowners association;

14. **Address Drainage and Water Quality Issues:** Provide adequate drainage, flood control and water quality improvements, which satisfy applicable local, state and federal criteria while respecting and enhancing/preserving natural drainage functions and features;
15. **Ensure Provision of Public Services:** Ensure provision of adequate public services, utilities and infrastructure in a timely manner as development occurs; and
16. **School Facilities:** Ensure provision of adequate education facilities within the planned community, pursuant to applicable school district and state requirements.

6.4 SIGNIFICANT AND UNAVOIDABLE IMPACTS OF THE PROPOSED PROJECT

While the specific mitigation measures summarized in Section 1.0, *Executive Summary*, would reduce the level of many significant impacts to a less than significant level, the Draft EIR identified the following areas where, after the implementation of feasible mitigation measures and consideration of Project Design Features and existing regulations, the Project would result in impacts which cannot be fully mitigated (note that these conclusions, and overall Project impacts, are similar to those found in the previously certified Deutsch Specific Plan EIR and City of Banning General Plan EIR):

Project Impacts

Aesthetics, Light and Glare

Implementation of the Projects mitigation measures as outlined in Section 4.1, *Aesthetics Light and Glare*, would reduce aesthetic impacts. However, due to the size of the proposed Project and the current context of undeveloped conditions onsite and within the project surroundings, it's impact on light and glare (associated with increased lighting sources from the proposed development) is considered significant and unavoidable, which is typical of large-scale residential development.

Air Quality

Implementation of the Projects mitigation measures as outlined in Section 4.3, *Air Quality*, would attenuate construction-related emissions, but as Project-related emissions are anticipated to exceed SCAQMD thresholds, construction-related emissions are considered significant and unavoidable because the basin is in a non-attainment for ozone and particulate matter.

During the operational phase, the Project would result in a net increase in regional emissions of ROG, NO_x, SO₂, CO, PM₁₀, and PM_{2.5} from the operation of both stationary and mobile sources.

Despite the inclusion of numerous project design features that would reduce the potential air quality impacts to the degree feasible, emissions would remain above SCAQMD significance thresholds for all of these criteria pollutants (except SO_x). Therefore, operation of the proposed Project would have a significant and unavoidable impact on regional air quality.

As the Project would exceed SCAQMD thresholds, the Project would potentially result in a long-term impact on the region's ability to meet State and Federal air quality Standards. The Project would conflict with the AQMP as it would not meet the first AQMP consistency criterion (Section 4.3, pages 4.3-36 and 4.3-37). However, the proposed Specific Plan is generally consistent with the previously approved Deutsch Specific Plan, and therefore the City of Banning General Plan's assumptions regarding population and housing growth. On a regional scale, the emissions from the Specific Plan have been considered in the forecasts presented in the 2007 AQMP. The Project would meet the second AQMP consistency criterion of whether the Project exceeds the assumptions utilized in preparing the forecasts presented in the AQMP focusing on 3 criteria (Page 4.3-37).

Traffic and Circulation

As determined in Section 4.13, *Traffic and Circulation*, construction of the recommended improvements, when and where needed, would achieve applicable level-of-service performance at all study area intersections; however, some improvements could also result in significant impacts to existing land uses (due to Project right-of-way requirements). These traffic measures would require varying levels of construction activities, which could result in air quality, noise and traffic impacts. As these improvements are designed and implemented, appropriate construction practices intended to minimize impacts would be required. For example, the implementation of best management practices with regard to erosion, the watering of construction sites, the use of properly operating equipment, and the use of noise reduction devices would minimize environmental impacts. In addition, traffic flow during construction of the improvements would be considered by the appropriate agency.

Also, due to the speculative nature of the timing of implementation and availability of funding to implement the planned improvements listed in Section 4.13, Traffic and Transportation to less than significant levels cannot be guaranteed, and as such, reduction of long-term traffic congestion impacts would remain significant and unavoidable. Further, many of the recommended improvements are located in jurisdictions outside the City of Banning. Most of these improvements have been, can be and should be implemented by those other agencies, but successfully completing the improvements in a timely fashion cannot be guaranteed.

Climate Change

The Project has implemented reasonable and feasible mitigation measures and has incorporated special Project Design Features to reduce greenhouse gas emissions to the extent feasible. In addition, the Project is consistent with the Deutsch Specific Plan represented in the adopted City of Banning General Plan, and therefore is consistent with the SCAG regional growth

projections. Post mitigation levels of greenhouse gases could be significant and unavoidable, due to the large scale of the project and the uncertainties in determining a quantitative basis for assessing the significance of a global impact.

Cumulative Impacts

Aesthetics, Light and Glare

Development of the Project and related projects will introduce significant sources of light (which could increase glare) into an existing rural, undeveloped area and result in a significant and unavoidable adverse impact on nighttime views of the Project site in the interim and long-term build-out condition. Mitigation measures can reduce these impacts but would not reduce them to a level of insignificance due to the nature, size, and scale of the proposed project and its cumulative significance.

Air Quality

The Project would contribute to a significant and unavoidable cumulative construction air quality impact given that the Basin is non-attainment for Ozone (8 hour), Particulate Matter (PM₁₀ - 24 hour/ Annual) and Fine Particulate Matter (PM_{2.5} - Annual). Emissions from development and operation of the proposed Project would exceed the SCAQMD thresholds for each of these criteria pollutants (except SO_x), resulting in a significant impact. In accordance with SCAQMD methodology, any project that results in emissions that cannot be mitigated to a level of less than significant is also considered significant on a cumulative basis.. Refer to Section 4.3, Air Quality for this analysis.

Climate Change

Although the Project has incorporated reasonable and feasible mitigation measures, it was conservatively concluded that even with implementation of Project features, GHG reduction measures, and mitigation measures, the Project's incremental contribution to global climate change can be considered "significant" on a cumulatively considerable basis.

Noise

Long-term traffic noise levels, comprised of project-generated and other locally-generated traffic sources would exceed threshold criteria at sensitive receptor locations along the areas adjacent to the site where existing developments are located (south along Wilson Street and in the southwest and southeast corners along Highland Springs Road and Highland Home Road, south of "F" Street. As the Project cannot reasonably or feasibly mitigate for cumulative mobile noise impacts (e.g., constructing sound walls along the entire perimeter of the sensitive uses surrounding the Project site; forcing existing residential uses to change their existing windows; etc.), implementation of the proposed Project would result in a significant and unavoidable impact for cumulative noise impacts.

Traffic and Circulation

As stated above under the Project impacts related to traffic and circulation, construction of the recommended improvements, when and where needed, would achieve applicable level-of-service performance at all study area intersections; however, as some improvements could also result in significant impacts to existing land uses (due to cumulative right-of-way requirements), certain improvements may either be made in part, deferred or not implemented due to overriding considerations and/or limited funding. Further, many of the recommended improvements are located in jurisdictions outside the City of Banning. Most of these improvements have been, can be and should be implemented by those other agencies, but successfully completing the improvements in a timely fashion cannot be guaranteed. Given these constraints, this Project's traffic could result in a cumulatively considerable traffic congestion impact at several locations.

6.5 ALTERNATIVES TO THE PROPOSED BUTTERFIELD SPECIFIC PLAN PROJECT

As noted previously, the *CEQA Guidelines* (Section 15126.6(e)(2)) require that the alternatives discussion analyze the "No Project Alternative." Pursuant to CEQA, the No Project Alternative refers to the analysis of existing conditions (i.e., implementation of current plans and consistency with available infrastructure and community services) and what would reasonably be expected to occur in the foreseeable future if the Project is not approved. When the project is the revision of an existing land use plan, the no project alternative is the continuation of the existing plan into the future and the EIR's discussion compared the projected impacts of the change that would result from approval of the project with the impacts that would occur under the existing plan. CEQA Guidelines Section 15126.6(e)(3)(A).

Potential environmental impacts of three separate alternatives are compared below to impacts from the proposed Project. These alternatives were selected based upon their ability to avoid or substantially lessen the significant effects of the proposed Project, while still achieving the primary Project objectives (to develop the site in a manner generally consistent with the currently approved Deutsch Specific Plan).

Although no specific alternatives were identified during the EIR Notice of Preparation (NOP) comment period and scoping process (see Appendix A), several residents did express concern regarding the Project density along the eastern boundary. In response to this, Pardee modified the Land Use Plan and created additional separation between the existing homes and proposed development.

For the purpose of this analysis, the alternatives are analyzed in comparison to the 5,387 dwelling unit Butterfield Specific Plan. The analysis for each of the Project alternatives identified below includes the following:

- Description of the alternative.
- Analysis of environmental impacts and comparison to the proposed Project. Pursuant to the CEQA Guidelines, if an alternative would cause one or more significant effects in addition to those that would be caused by the Project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the Project as proposed.
- Assessment of the ability of the alternative to meet the Project objectives (previously identified above and in Section 6.3).

The Project alternatives are:

- No Project/Existing Specific Plan Alternative
- Reduced Density – 20% Reduction Alternative
- Active Adult Community Alternative
- No Golf Course Alternative

Alternatives rejected from further consideration:

- No Development Alternative
- Alternative Site Alternative

CEQA states that the specific alternative of “No Project” shall also be evaluated along with its impact (15126.6(e)(1)). If the environmentally superior alternative is the “No Project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (15126.6(e)(2)). A comparison of the proposed alternatives to the proposed Project is presented in Table 6-1, Comparison of Impacts Resulting from Project Alternatives As Compared to the Proposed Project. An indication of whether the impacts resulting with each alternative would be lesser, greater, or similar to the proposed Project is given.

NO PROJECT / EXISTING SPECIFIC PLAN ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

In accordance with the State CEQA Guidelines, the No Project Alternative for a development project on an identifiable property consists of the circumstance under which the project does not proceed. Section 15126.6(e)(3)(A) of the Guidelines states that, “when the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the ‘no project’ alternative will be the continuation of the existing plan...” For purposes of this analysis, the No Project/Existing Specific Plan Alternative assumes this condition. Accordingly, the No Project / Existing Specific Plan Alternative assumes that development as proposed with the Butterfield Specific Plan Project would not occur, and that the Project site would instead remain subject to the provisions contained within the currently approved Deutsch Property Specific Plan. The

Deutsch Property Specific Plan provides for a total of 5,400 dwelling units (with a net density of 3.5 du/ac), three elementary schools, a 193-acre 18-hole championship golf course, a 10-acre community center, a 10-acre commercial site, a 5-acre medical/office site, two community parks and three neighborhood parks (totaling approximately 75 acres of parks). The Deutsch Property Specific Plan includes a higher maximum number of dwelling units than the proposed Project (5,387 dwelling units) and an equivalent gross density (3.5 du/ac). Additionally, this alternative would have a slightly larger impact area (1,552 acres) than the proposed Project (1,543 acres). A detailed comparison of the currently approved Deutsch Specific Plan with the proposed Butterfield Specific Plan is provided in Section 3.6.1 and Table 3.0-3 of this Draft EIR, and in Section 1.4 of the Draft Butterfield Specific Plan. The primary differences between the presently approved and the proposed Specific Plans are:

- Increase in dwelling units (du's) (Butterfield proposes 5,387 du's vs. Deutsch SP approved 5,400 du's)
- Decrease in open space (Butterfield proposes 428.8 acres vs. Deutsch SP approved 268 acres)
- Decrease in commercial use acres (Butterfield proposes 36 acres vs. Deutsch SP approved 25 acres)
- Does not include an optional satellite wastewater treatment plant
- A less efficient internal circulation system, and the elimination of the proposed NEV program
- Does not include open space buffers along the northeastern boundary
- Omission of the 70-acre natural open space area in PA 71 proposed under the Butterfield SP, which is intended to preserve the steeper slopes in open space
- No realignment of the golf course and Planning Areas to respect the identified seismic hazards
- Does not include the optional 21-acre area that could be acquired and/or annexed in the future

IMPACTS COMPARED TO THE PROPOSED PROJECT

Aesthetics, Light, and Glare

Development of 5,400 dwelling units within the Deutsch Property Specific Plan area would significantly alter the existing visual resources and site character of the Project site and would result in new stationary and mobile sources of light and glare. As compared to the proposed Project, the increased dwelling unit count of this alternative could incrementally increase the impacts on site character, particularly since the development footprint would be slightly larger. Short-term construction impacts would be similar to the Project, as mass grading of the site would occur, resulting in temporary exposure of onsite soils and construction equipment and

debris, and views to the site during construction would occur from surrounding public vantage points. In addition, no onsite natural open space in the northern foothills area would occur under the Deutsch Property Specific Plan Land Use Plan, allowing for a greater portion of the property to be visually changed from undeveloped to developed land. In addition, the increase of residential units by approximately 0.24% would result in a (very) slight increase of new sources of light and glare as compared to the proposed Project, thereby increasing the potential for light pollution and light trespass to occur. Therefore, impacts related to aesthetics, light, and glare are considered to be marginally greater under the No Project / Existing Specific Plan Alternative, as compared to the proposed Project, and would not be reduced to a level that is less than significant.

Agricultural Resources

Although development of the site under the proposed Project and this alternative would result in conversion of approximately 1,500 acres of State-designated Farmland of Local Importance, the Deutsch Banning Specific Plan EIR previously determined that the conversion of such farmland would result in a less than significant impact. Therefore, implementation of this alternative, as with the proposed Project, would result in less than significant impacts to agricultural resources concerning the conversion of Farmland of Local Importance to non-agricultural use. Similar to the proposed Project, this alternative would not result in a conversion of forest land to non-forest use, and impacts would be less than significant.

Air Quality

The proposed No Project / Existing Specific Plan Alternative would develop 5,400 dwelling units, as compared to 5,387 dwelling units with the Project. Because the development area and the number of dwelling units proposed under this alternative would be greater than the proposed Project, short-term construction-related impacts would also be greater, as increased construction activities would occur. However, mobile vehicular emissions may be slightly reduced, commensurate with the slightly reduced offsite traffic generation noted below (i.e., an approximately 7% reduction in net total trip generation). Despite this reduction in traffic, it is not anticipated that this alternative would eliminate the significant long-term operational air quality impact identified for the project, since impacts were determined to exceed SCAQMD thresholds by 4 to 14 times. The mitigation program identified for the proposed Project to reduce potential impacts on air quality would apply to this alternative; however, similar to the proposed Project, significant unavoidable air quality impacts for the construction and operational phases, as well as conflicts with the applicable air quality management plan, would still occur.

Biological Resources

Development of the No Project / Existing Specific Plan Alternative would result in a larger development area of 1,552 acres (as the Project retains a 70-acre natural open space area), which

would result in greater impacts to existing biological resources. This alternative includes 75 acres of park space and 193 acres for the golf course, whereas the proposed Project provides 253.9 acres for the golf course, 67 acres of park space, and 108.4 acres of open space, which includes drainage and recreation area open space. Furthermore, the proposed Project would provide area within the golf course that would incorporate native landscaping for biological mitigation and provide natural open space in the far northern and eastern area of the Project site.

The proposed Project would essentially create superior habitat within these areas of the Project site; the Deutsch SP would provide a reduced amount of open space and does not include the same degree of native landscaping proposed in the Butterfield SP. While the proposed Project would plant native plant materials in areas occupied by the Smith Creek alignment, this alternative does not, thus decreasing future biological habitat within the realignment of Smith Creek. Under the proposed Project, the plant palette and re-vegetation associated with Smith Creek is designed to replicate natural conditions and to preserve and enhance biological values. The system of basins will also be vegetated under the proposed Project and the landscaping of active recreational areas will increase the availability of plant cover and trees on the site, providing habitat for birds and forage for birds of prey.

Therefore, implementation of this alternative would result in greater impacts to biological resources as compared to the Project, due to comparatively decreased provisions for on-site open space.

Climate Change

Development of the No Project / Existing Specific Plan Alternative would include construction of 5,400 dwelling units, three schools, a commercial center and a community center, and 75 acres of parks. Construction of the additional residential units as compared to the Project would require increased grading and construction activities, thereby resulting in increased emissions (due to the larger grading area). The net effect of land use changes would be expected as a slight reduction in energy demand due to very slight increase in residential and a potential 25% reduction in commercial land uses. Although design features and mitigation measures would be incorporated to reduce greenhouse gas emissions and pollutant criteria emissions, incremental contributions and cumulative development greenhouse gas impacts may still remain significant and unavoidable, as with the proposed Project. The approved Deutsch Specific Plan does not include the extensive suite of energy conservation and greenhouse gas reduction measures as proposed with the Butterfield Specific Plan, as described in Section 4.5, Climate Change (including a Neighborhood Electric Vehicle program, bus stops within the Specific Plan, Pardee's LivingSmart conservation program, and other factors). However, it should be noted that Pardee may implement the LivingSmart conservation program, and other conservation programs, which would help reduce greenhouse gas emissions if the Project were to be developed under the approved Deutsch Specific Plan. Impacts with regard to climate

change associated with this alternative would be similar or greater as compared to the proposed Project.

Cultural Resources

Development of the No Project / Existing Specific Plan Alternative would result in a larger development area of 1,552 acres (compared to the proposed project), which would potentially result in greater impacts to existing cultural and historical resources, particularly with regard to unknown resources. Similar construction activities would be required to prepare the site for development and may result in impacts to undiscovered resources during grading and excavation. As such, mitigation measures in the form of monitoring, similar to the proposed Project, would be required to reduce potential impacts to less than significant; however, as a greater land area would be affected by this alternative, potential impacts on cultural, historic, and paleontological resources are considered to be slightly greater as compared to the Project.

Geology, Soils, and Seismicity

Development of 5,400 dwelling units with the No Project / Existing Specific Plan Alternative would have slightly increased impacts with regard to geology, soils and seismicity, as a larger development area of 1,552 acres would be affected, resulting in a potential increase in disturbed and/or unstable surfaces when compared to the proposed Project. The Deutsch Specific Plan also did not account for identified faults in the northeastern area, nor did it specify avoidance of development near fault areas. The proposed Project recognizes these faults and would distribute the land uses to avoid development within a specified setback in these fault areas, which would reduce the exposure of structures and people to hazards from landslides, seismic events and unstable soils. Additionally, the increased number of dwelling units resulting with this alternative would increase the number of people that would be exposed to potentially adverse impacts from seismic ground shaking, landslides, seismic events, and unstable soils. Development would be subject to applicable Federal, State, and local codes, permits, and regulations pertaining to design requirements, as with the proposed Project, to reduce impacts to less than significant; however, long-term impacts related to geology, soils, and seismicity would be marginally greater than those with the proposed Project.

Hazards and Hazardous Materials

Short-term impacts resulting with the transport of debris and trash from grubbing and clearing, use of hazardous products, fuel spills, and accidental release and/or handling of hazardous waste would be similar to that of the proposed Project. Development of the No Project / Existing Specific Plan Alternative would result in an incremental increase in the potential exposure of people and structures to wildfire hazards when compared to the proposed Project, as a greater number of residential units would be constructed. The existing Deutsch Specific Plan also proposes development throughout the steeper northeastern section of the Project, where fire response and water system pressure would be more challenging. These challenges

could likely be overcome through measures similar to those proposed for the Project, such as fuel modification, and water pressure zone modifications (including pump stations and storage tanks to serve higher elevations). Overall, impacts would not be substantially different than that which would result with the Project.

Hydrology and Water Quality

Development of the Project site under the No Project / Existing Specific Plan Alternative would result in a slightly greater number of residential dwelling units than the proposed Project. The greater development footprint (less open space) would add to the overall amount of impermeable surfaces, thereby increasing the amount of stormwater runoff from the developed portions of the Project site. In addition, this alternative would require grading and disturbance of a larger surface area, thereby increasing the potential for erosion and siltation to occur as the result of exposed soils during construction. This alternative does not have as dynamic and comprehensive an approach to water supply, drainage, water quality and biological mitigation, whereas the Project integrates these ecosystem functions through the realigned Smith Creek, north basin, recharge/water quality basins, and biological mitigation areas. Therefore, impacts on hydrology and water quality would be slightly greater than those of the proposed Project.

Land Use and Planning

The No Project / Existing Specific Plan Alternative would be consistent with the existing land use designation by implementing the existing Deutsch Property Specific Plan in the Project area, and no conflicts with any applicable land use plan or habitat conservation plan would occur, nor would this alternative physically divide an established community. With implementation of this alternative, the existing agricultural land uses would be permanently converted to urban land uses, including residences, schools, a golf course, parks, and commercial uses, similar to the proposed Project. However, the currently approved Deutsch Specific Plan has more limited open space buffers for existing residential areas along the eastern boundary, which could result in additional impacts associated with air quality, noise, and light and glare. Impacts on land use and planning would therefore be similar or slightly greater to those of the proposed Project.

Noise

Development of the No Project / Existing Specific Plan Alternative would include construction of 5,400 dwelling units, three schools, a commercial center and a community center, and 75 acres of parks. The density of this alternative would be similar to that of the proposed Project; however, due to a larger development footprint, the impacts resulting from construction noise would likely be slightly greater as compared to the Project. The Deutsch Specific Plan also has less buffer area between residences to the east, which would likely result in slightly greater construction and operational noise impacts (to existing residential areas along Highland Home Road). Operational noise impacts from commercial uses (e.g. truck deliveries, loading dock activities, etc.) would be similar to those of the Project. Mobile noise impacts (from Project

traffic) would be slightly reduced, commensurate with the slight reduction in offsite traffic noted below. Overall, impacts related to noise would be similar to those resulting from the proposed Project.

Public Services and Utilities

The No Project / Existing Specific Plan Alternative would generate a slightly greater number of residential units as compared to the proposed Project, although the commercial area is reduced. Therefore, the associated demand for public services (fire, police, schools, libraries, and solid waste) and utilities (water, sewer, electricity, and natural gas) would likely be similar to that of the proposed Project. The Project proposes a more comprehensive approach to public services such as schools, fire (with the fire station site relocated to better serve the Project), wastewater (a proposed optional satellite wastewater treatment plant), and water (comprehensive approach to maximize use of local water supplies included reclaimed water and stormwater runoff). Based on this, impacts regarding public services and utilities would be greater than the proposed Project with implementation of this alternative.

Traffic and Transportation

Total net trip generation for this alternative would be an estimated 58,000 average daily traffic trips (ADT) (net total trip generation) at buildout. This represents a decrease of approximately 4,263 ADT, or 7%, as compared to the proposed Project, due to the reduced commercial center acreage. It should be noted that this trip reduction may also occur with the Project as proposed, as the Project includes a residential overlay for the school and commercial sites, but holds the residential density at the maximum proposed of 5,387 DU. In addition, the total traffic generation associated with the proposed Project would remain constant regardless of the amount of commercial development that occurs within the overlay areas of the Specific Plan (as referenced in mitigation measure TRF-2). This potential reduction in offsite traffic generation would have a lesser impact on the City and surrounding circulation system, and would reduce the Project's contribution toward cumulative impacts. However, Project traffic impact fees would also be reduced as well as reduced commercial services and/or school facilities.

As with the proposed Project, significant and unavoidable impacts would remain after mitigation measures are implemented, as many improvements are required outside of the jurisdiction of the City of Banning, and certain improvements may be infeasible due to existing development and/or constrained right-of-ways. As such, recommended mitigation for cumulative impacts cannot be ensured, particularly over the time span assumed for buildout. Cumulative impacts would remain significant and unavoidable, similar to the proposed Project.

Therefore, the No Project/Existing Specific Plan Alternative would result in slightly reduced traffic impacts as compared to the Project, but would not eliminate the identified significant and unavoidable impacts.

Water Supply

This alternative would generate a slightly greater number of residents compared to the proposed Project, although reduced commercial acreage is designated. The net effect is an anticipated slight reduction in water demand compared to the Project. It is assumed that the beneficial impacts associated with the realignment of Smith Creek and the proposed State Water Project water deliveries for storage and groundwater recharge would still occur under this alternative, thereby allowing for groundwater recharge. In addition, similar to the proposed Project, City infrastructure would require either upgrades or replacement to ensure that adequate recycled water services are provided. However, the approved Deutsch Specific Plan did not include the comprehensive water supply program being proposed by the Project, including maximization of groundwater resources, stormwater runoff capture, reclaimed water, and aggressive water conservation measures. As such, although the water demand may be slightly reduced, the net effect on City and regional water supplies is considered greater under this alternative.

CONCLUSION

A comparative summary of the environmental impacts associated with the No Project/Existing Specific Plan Alternative with the environmental impacts anticipated under the proposed project is provided in Table 6-1 at the end of this Chapter. The No Project / Existing Specific Plan Alternative would meet the Project objectives and would slightly reduce certain impacts in comparison to the proposed Project while slightly increasing others. This Alternative does not reflect more refined land use planning, more sensitive treatment of the eastern boundary with existing residences, improved public safety by respecting identified fault zones, improved internal circulation, and increased natural open space.

Project objectives that would *not* be achieved under this alternative include:

2. **Update the Deutsch Specific Plan:** This alternative would not update the prior approved 1993 Deutsch Property Specific Plan based on current and projected market conditions, but would leave the Plan in its current condition, which was based on market conditions existing at the time it was approved (1993);
3. **Provide a Quality, Livable Community:** The prior approved Deutsch SP would not offer the same level of community amenities. The Deutsch SP would decrease the amount of open space overall compared to the proposed Project and would eliminate the open space buffer along the northeastern boundary of the Project site.
5. **Promote Sustainability:** The prior approved Deutsch SP would allow for a less efficient internal circulation system, and would eliminate the proposed NEV program. In addition, this alternative would not incorporate the proposed green building practices (Mitigation Measures GHG-1 and GHG-2).

6. **Incorporate Water and Energy Efficiency:** As stated above, this alternative would not incorporate the proposed green building practices (Mitigation Measure GHG-1 and GHG-2) which include various energy- and water-conserving features.
7. **Conserve Water Resources:** This alternative would not include the potential onsite satellite wastewater treatment plant or the proposed groundwater recharge system. It would also not include water-conserving features listed in Mitigation Measure GHG-1.
12. **Encourage Alternative Transportation:** As stated above, the prior approved Deutsch SP would eliminate the proposed NEV program.
14. **Address Drainage and Water Quality Issues:** Under this alternative, the proposed drainage improvements within Smith Creek would be eliminated. Under the proposed Project, Smith Creek serve as the primary backbone drainage facility, conveying storm water and nuisance flows through biological habitat mitigation areas, water quality treatment facilities, and groundwater recharge areas located along its alignment

REDUCED DENSITY (20% Reduction) ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

The purpose of the Reduced Density Alternative is to reduce impacts from the Project related to the number of units developed and the intensity of commercial development. Under this alternative, the total number of residential dwelling units would be reduced from 5,387 to 4,318, representing a reduction of 1,069 units, or approximately 20%. In addition, it is anticipated that commercial square footage would be reduced by 20% under this alternative. This alternative assumes the development of 4,318 residential units in the same Planning Areas proposed with the Project. Under this alternative, the average residential density would be reduced from 3.5 du/ac to 2.8 du/ac. This reduced density alternative may not have the same design features as the proposed Project, and therefore, the impacts of this alternative could be greater than or less than the impacts of the proposed Project with regard to specific issue areas. As a variation of this alternative, the site could be developed with higher density product in the lower elevations in a "cluster development" fashion, leaving increased natural open space in the northeastern areas and reducing the extent and cost of infrastructure improvements and site grading. The Deutsch Specific Plan presently allows for this flexibility with cluster development and mixed use overlays in the residential Planning Areas. The Reduced Density Alternative may not require the same acreage for the community park based on a reduction in population within the Project site (due to the lower allowable population growth within the Project site). In addition, due to a reduction in residential units, student generation would be reduced by 20%, potentially resulting in the reduction or elimination of proposed school sites under this alternative.

IMPACTS COMPARED TO THE PROPOSED PROJECT

Aesthetics, Light, and Glare

Development of 4,318 dwelling units within the Butterfield Specific Plan area would significantly alter the visual setting and character of the Project site and result in new stationary and mobile sources of light and glare. Short-term construction impacts would be similar to the Project, as mass grading of the site would occur, resulting in temporary exposure of onsite soils and construction equipment and debris, and views to the site during construction would occur from surrounding public vantage points. Compared to the proposed Project, the reduced dwelling unit count of this alternative could reduce visual impacts on site character as density would be reduced, thereby resulting in a smaller percentage of land that would support physical development. Although a reduction in unit density within the landscape would be visually evident, development of the site would still result in a visual change from undeveloped to developed land. The reduction of units by approximately 20% would generate fewer new potential sources of light and glare as compared to the proposed Project, thereby reducing such potential impacts with regard to light pollution and spillover onto adjacent lands; however, in relation to the current conditions, this alternative still introduces a significant new light source. Therefore, impacts related to aesthetics, light, and glare would be slightly reduced under this alternative as compared to the proposed Project, but not to a level of less than significant. If a higher density cluster development approach were pursued, creating additional open space in the northeast, this alternative would result in still further reduced impacts, but impacts would remain significant.

Agricultural Resources

While the overall number of residents and dwelling units would be reduced under this alternative, the land would still be developed in the same Planning Areas as proposed in the Butterfield Specific Plan. As such, implementation of this alternative would result in similar less than significant impacts to agricultural resources as compared to the proposed Project, specifically related to conversion of Farmland of Local Importance to non-agricultural use.

Air Quality

The proposed alternative would result in development of 4,318 dwelling units, as compared to 5,387 dwelling units with the Project, thereby reducing the overall number of resulting daily vehicle trips generated. As such, this alternative would result in reduced vehicle-generated air emissions as compared to the Project. The development area under this alternative would be the same as for the proposed Project. Short-term construction-related and long-term operational impacts would be reduced. However, short-term impacts would remain significant for PM₁₀, PM_{2.5}, NO_x, and ROG and long-term operational impacts for ROG, NO_x, CO, PM₁₀, and PM_{2.5} would remain significant albeit reduced by 20% in comparison to the proposed project. However since the impacts associated with the proposed project are 4-14 times greater than the

thresholds, this reduction would not reduce impacts to less than significant levels. The mitigation program identified for the proposed Project would apply to this alternative; however, while impacts would be reduced with this alternative due to a reduction in the number of dwelling units proposed and possible reduction in development footprint, significant unavoidable air quality impacts would still occur.

Biological Resources

The alternative design utilizes the same type of development footprint as the proposed Project, with fewer overall units; therefore, impacts to biological resources would be similar in nature to the proposed Project. However, because the development footprint could be reduced through a cluster development approach, impacts on biological resources would be slightly reduced as compared to the Project (although the biological resource value of the northeastern slopes is relatively limited). Impacts are considered to be similar to that of the proposed Project.

Climate Change

This alternative would reduce the overall density by 20%, thereby reducing required grading and construction activities, which in turn would decrease related emissions by a similar percentage. In addition, the reduced density would have corresponding reductions in electricity and natural gas demand, as well as indirect greenhouse gas emission generation from such factors as solid waste generation and water pumping. The number of vehicle trips generated and related emissions would also decrease, thereby reducing mobile greenhouse gas emissions. This alternative would incorporate design features and implement reasonable and feasible mitigation measures similar to the proposed Project. Nonetheless, greenhouse gas impacts would remain significant and unavoidable, as with the proposed Project, considering the volume of the emissions. Impacts with regard to climate change associated with this alternative would be slightly reduced as compared to the proposed Project.

Cultural and Paleontological Resources

This alternative would result in similar impacts on historical, cultural, and paleontological resources as compared to the proposed Project, particularly with regard for unknown resources. As with the proposed Project, mitigation would be implemented to reduce potential impacts on such resources within and in the vicinity of the Project site to less than significant levels. A cluster development variation could slightly reduce the potential for disturbing unidentified resources. Therefore, impacts on historical, cultural, and paleontological resources resulting from this alternative would be similar to those of the proposed Project.

Geology, Soils, and Seismicity

Development of the 4,318 dwelling units with this alternative could have equivalent impacts with regard to geology, soils and seismicity as the alternative proposes a development footprint

similar to the proposed Project; however, the reduced density proposed with this alternative would reduce the amount of people that would be exposed to potential adverse impacts resulting from seismic ground shaking, landslides, seismic events, and unstable soils. All development would be subject to applicable Federal, State, and local codes, permits, and regulations pertaining to design requirements, as with the proposed Project, to reduce impacts to less than significant. Therefore, long-term impacts related to geology, soils, and seismicity would be reduced compared to those resulting with the proposed Project.

Hazards and Hazardous Materials

Short-term impacts resulting from the transport of debris and trash from grubbing and clearing, use of hazardous products, fuel spills, and accidental release and/or handling of hazardous waste would be similar to that of the proposed Project. Development of the Project site would result in increased exposure of people and structures to potential wildfire hazards when compared to existing conditions; however, such potential hazards would be reduced as compared to the Project, as a lesser number of dwelling units would be constructed. Wildland fire hazards could be further reduced through clustering development in lower elevations (although the Project includes mitigation to address this issue). Overall, impacts would not be substantially different than that which would result with the Project.

Hydrology and Water Quality

Development of the Project site under this alternative would result in fewer residential dwelling units than the proposed Project. The reduction in units could reduce the amount of impermeable surfaces, thereby reducing the amount of potential stormwater runoff from the developed portions of the Project site, and allowing for greater infiltration. This alternative would still require grading and disturbance of the site, thereby resulting in a potential for erosion and siltation to occur as the result of exposed soils during construction. It is assumed that the implementation of this alternative would result in the drainage improvements to Smith Creek similar to those proposed with the Project, including the onsite infiltration areas, which together would provide for reduced potential for erosion and increased groundwater infiltration. As a result of the reduced impervious surface area, impacts on hydrology and water quality would be slightly reduced as compared to those of the proposed Project.

Land Use and Planning

This alternative would result in development of the Project site consistent with the existing Specific Plan designation. In addition, development of the proposed 4,318 dwelling units would be sufficient to provide enough housing to meet the needs identified in the Regional Housing Needs Assessment. No conflicts with any applicable land use plan or habitat conservation plan would occur, nor would this alternative physically divide an established community. Similar to the proposed Project, the existing agricultural land uses would be permanently converted to urban land uses, including residences, schools, a golf course, parks, and commercial uses;

however, development would occur at a reduced density. Impacts on land use and planning would therefore be similar to those of the proposed Project.

Noise

Development of this alternative would include 4,318 dwelling units, two schools, and 67 acres of parks. As such, the reduced offsite vehicle trips would have a corresponding reduction in offsite Project-related traffic noise, and would reduce the Project's contribution toward cumulative noise impacts. Additionally, as a lesser number of dwelling units would be constructed, impacts resulting from construction noise would likely be decreased overall as compared to the Project. However, construction noise would remain the same on a day-to-day basis, as similar equipment would be utilized during project construction. The duration of Project construction would, however, be shorter. If clustering of the residential units would occur, pockets of the Project site would experience increased levels of noise as compared to the proposed Project, particularly within the lower elevations where clustered units would most likely be located.

Impacts on noise would therefore be slightly reduced as compared to those of the proposed Project, although significant cumulative noise impacts would remain due to existing background growth and Project traffic noise.

Public Services and Utilities

This alternative would generate fewer residential units and residents compared to the proposed Project; therefore, the associated demand for public services (fire, police, schools, library, and solid waste) and utilities (water, sewer, electricity, and natural gas) would be reduced. Impacts with regard to fire and police services would be similar to that of the Project, with a slight decrease in demand for such services. In addition to these amenities, City infrastructure would require either upgrades or replacement to ensure the Project is supplied with adequate sewer and water services. Overall impacts regarding public services and utilities would be slightly reduced with this alternative as compared to the proposed Project.

Traffic and Transportation

Total net trip generation for this alternative would be an estimated 50,000 average daily traffic trips (ADT) as compared to the proposed Project, assuming an "across the board" reduction in Project land uses (residential, commercial and schools). This represents an approximate 20% reduction in offsite traffic, from 62,263 to 50,000 ADT. Due to the reduced offsite traffic volume, the Project's impact on City and local circulation systems would be reduced, although traffic mitigation fees would also be reduced.

Mitigation measures would be required to reduce potential impacts to area roadways and intersections, similar to the proposed Project. Due to the reduced traffic volume, certain offsite

improvements would either be reduced in magnitude or eliminated. Preliminary review by the Project traffic consultant, LSA, indicates that improvements could be reduced at some Study Area locations (2, 18, 20, 23, 27, 31, and 38) and may be eliminated at some Study Area locations (28, 32, 35, and 42). Reduced offsite traffic improvements would reduce the extent of impacts related to these improvements. As with the proposed Project, significant and unavoidable impacts remain after mitigation measures are implemented, as many improvements are required outside of the jurisdiction of the City of Banning, and certain improvements may be infeasible due to existing development and/or constrained right-of-ways. As such, recommended mitigation for cumulative impacts cannot be ensured, particularly over the time span assumed for buildout. Cumulative impacts would remain potentially significant and unavoidable, similar to the proposed Project.

Based on the analysis, the Reduced Density (20% Reduction) Alternative would result in reduced traffic impacts as compared to the Project, although unavoidable significant impacts would remain.

Water Supply

This alternative would reduce overall development by 20%, and therefore, the associated demand on water resources would decrease as compared to the proposed Project. It is assumed that the beneficial impacts associated with the realignment of Smith Creek and the proposed State Water Project water deliveries for storage and groundwater recharge would still occur under this alternative, thereby allowing for groundwater recharge. Existing City infrastructure would be required to be upgraded or replaced as needed, to ensure that adequate recycled water services are provided. Overall impacts related to water supply, including groundwater depletion, would be reduced with implementation of this alternative, as compared to the proposed Project.

CONCLUSION

As further described below, the Reduced Density Alternative would attain some of the basic objectives of the project, although not to the same extent as the proposed Project, since a number of project objectives would not be fulfilled.

The Reduced Density Alternative would reduce the level of impact for various topical issues as identified above, due to the overall 20% reduction in development and associated population and vehicle trips generated (refer to Table 6-1 for a comparison of impacts resulting from the Reduced Density Alternative). Although overall impacts would be reduced compared to the proposed Project, the significant, unavoidable impacts of the Project related to aesthetics, air quality, climate change, noise, traffic and transportation, and water would still occur. This alternative would offer less housing as compared to the proposed Project (4,318 DU vs. 5,387 DU, respectively)). In addition, according to the City's 2008 Draft Housing Element Update and the State Department of Finance, residential household units in the City of Banning have an

occupancy rate of 2.7 persons. Under this alternative, the 14,580 additional persons projected under the current entitlements (Deutsch SP) and the 14,544 additional persons under the proposed Project (Butterfield SP) would be reduced to 11,659 persons based on the 20% reduction. The 2008 Draft Housing Element (refer to Appendix D of this Housing Element) assumes the previous Deutsch SP's household unit growth as part of the "Approved Projects Inventory"; therefore, the 20% reduction proposed under this alternative would not be consistent with the City General Plan Housing Element.

Project objectives that would *not* be achieved under this alternative include:

1. **Master Planned Community:** This alternative conflicts with the City's vision of its future as articulated in the City's 2008 Draft Housing Element based on the reduction in household unit growth;
4. **Provide a Wide Range of Housing Opportunities:** This alternative allows less flexibility to respond to changing market demand and the developing economic profile of the community, because it would restrict the level of development (by 20%) that could occur with those Planning Areas proposed under the current Project as High Density Residential (HDR), Medium Density Residential (MDR), and Low Density Residential (LDR).

ACTIVE ADULT LAND USE PLAN ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

This alternative assumes that the Planning Areas 40-49 and 53-59 located in the northwestern part of the Specific Plan would be designated as exclusively age restricted, "active adult" homes (assumed to be 1,700 DU)¹. Refer to Exhibit 3.0-3, *Land Use Plan*, to locate these Planning Areas within the Project site. A total of 5,387 DU would still be constructed with this alternative. These age-restricted planning areas would take access off the North Loop Collector Road. Under an age-restricted, "active adult" homes scenario, the North Loop Road could be proposed as a gated, access-controlled private roadway. All other aspects of this alternative would be similar to the proposed Project. This option, in fact, is presently permitted within the proposed Butterfield Specific Plan, as a variation to the traditional single-family housing (the Specific Plan includes two adult living scenarios, ranging from 1,460 DU to 2,042 DU). The net effect of the active adult housing in these PAs would be approximately 53,000 ADT in comparison to the Project's 62,263 ADT (due to reduced trip generation rates for active adult housing)². The active adult land use plan may not require the same acreage for the community park based on a reduction in population within the Project site (due to the lower population

¹ A detailed description of "Active Adult" alternatives is provided in Section 3.0, Project Description.

² Using ITE trip generation rates, 1,700 DU of active housing results in approximately 6,600 ADT, with 10% internal trip capture, yields 6,000 ADT in offsite trip generation. This compares to approximately 15,300 ADT (17,000 ADT with 10% internal trip capture) with traditional single family housing or approximately 9,000 ADT less than the proposed Project.

factor for age-restricted housing). In addition, the need for the proposed school sites may be reduce or eliminated, because the number of school-aged children within the Project site would be greatly reduced.

IMPACTS COMPARED TO THE PROPOSED PROJECT

Aesthetics, Light, and Glare

Development of active adult housing within the Butterfield Specific Plan area would overall be similar to the proposed Project, with a similar development footprint. Short-term construction impacts would be similar to the Project, as mass grading of the site would occur, resulting in temporary exposure of onsite soils and construction equipment and debris, and views to the site during construction would occur from surrounding public vantage points. Therefore, impacts related to aesthetics, light, and glare would be similar under this alternative as compared to the proposed Project.

Agricultural Resources

Implementation of this alternative would result in similar impacts to agricultural resources as compared to the proposed Project, specifically related to conversion of Farmland of Local Importance to non-agricultural use.

Air Quality

The proposed alternative would result in less offsite trip generation and lower utility/service demand from the active adult housing component, thereby reducing the overall air emissions associated with motor vehicles and energy demand. However, it is not anticipated that this alternative would reduce air emissions to a less than significant level, since this alternative would result in a 15 percent reduction in ADT and current emissions 4-14 times greater than their respective significance threshold. Based on this it is not anticipated that this alternative would eliminate significant unavoidable impacts associated with the proposed Project. The mitigation program identified for the proposed Project would apply to this alternative; however, while impacts would be reduced with this alternative due to a reduction in traffic and energy demand, significant unavoidable air quality impacts would still occur due to site grading and operational emissions.

Biological Resources

If this alternative design utilizes the same type of development footprint, then impacts to biological resources would be similar in nature to the proposed Project. For purposes of this analysis, impacts are considered to be similar to that of the proposed Project.

Climate Change

This alternative would have reduced offsite traffic (by approximately 15%), as well as reductions in electricity and natural gas demand, as well as indirect greenhouse gas emission generation from such factors as solid waste generation and water pumping. This equates to a reduction of approximately 16,000 metric tons of CO₂ equivalent. This alternative would incorporate design features and implement reasonable and feasible mitigation measures similar to the proposed Project. Nonetheless, greenhouse gas impacts would remain significant and unavoidable, as with the proposed Project, considering the volume of emissions. Impacts with regard to climate change associated with this alternative would be slightly reduced as compared to the proposed Project.

Cultural Resources

This alternative would result in similar impacts on historical, cultural, and paleontological resources as compared to the proposed Project, particularly with regard for unknown resources. As with the proposed Project, mitigation would be implemented to reduce potential impacts on such resources within and in the vicinity of the Project site to less than significant levels. Therefore, impacts on historical, cultural, and paleontological resources resulting from this alternative would be similar to those of the proposed Project.

Geology, Soils, and Seismicity

Development of this alternative would have equivalent impacts with regard to geology, soils and seismicity, if the alternative proposes a development footprint similar to what is proposed for the Project. All development would be subject to applicable Federal, State, and local codes, permits, and regulations pertaining to design requirements, as with the proposed Project, to reduce impacts to less than significant. Therefore, long-term impacts related to geology, soils, and seismicity would be similar compared to those resulting with the proposed Project.

Hazards and Hazardous Materials

Due to a similar development footprint and overall similar development density, overall impacts would not be substantially different than that which would result with the Project.

Hydrology and Water Quality

Development of the Project site under this alternative would result in similar development footprint and impermeable surfaces, and therefore similar stormwater runoff from the developed portions of the Project site. This alternative would require grading and disturbance of a similar surface area, thereby resulting in a similar potential for erosion and siltation to occur as the result of exposed soils during construction. It is assumed that the implementation of this alternative would result in the drainage improvements to Smith Creek similar to those

proposed with the Project, including the onsite infiltration areas, which together would provide for reduced potential for erosion and increased groundwater infiltration. Therefore, impacts on hydrology and water quality would be similar as compared to those of the proposed Project.

Land Use and Planning

This alternative would result in development of the Project site consistent with the existing Specific Plan designation and consistent with the goals and policies of the 2008 Housing Element. No conflicts with any applicable land use plan or habitat conservation plan would occur, nor would this alternative physically divide an established community. Similar to the proposed Project, the existing agricultural land uses would be permanently converted to urban land uses, including residences, schools, a golf course, parks, and commercial uses. Impacts on land use and planning would therefore be similar to those of the proposed Project.

Noise

The reduced offsite vehicle trips would have a corresponding reduction in offsite Project-related traffic noise, and would reduce the Project's contribution toward cumulative noise impacts. Impacts on noise would therefore be slightly reduced as compared to those of the proposed Project, although significant cumulative noise impacts would remain due to existing, background growth and Project traffic noise.

Public Services and Utilities

This alternative would generate reduced demand for public services (fire, police, schools, library, and solid waste) and utilities (water, sewer, electricity, and natural gas) due to typical reduced demand with active adult housing (with the possible exception of emergency medical care). By definition, active adult housing is age restricted, which means that household sizes are on average less than typical single-family residential units. In addition, Active Adult residential units tend to be smaller than units designed for families. As such, public service and utility demand factors for active adult housing are generally less than use factors for typical single-family residential units. Under both the alternative and the proposed Project, City infrastructure would need to be upgraded or replaced to ensure adequate sewer and water services. Overall impacts regarding public services and utilities would be slightly reduced with this alternative as compared to the proposed Project.

Traffic and Transportation

Total net trip generation for this alternative would be an estimated 53,000 average daily traffic trips (ADT) as compared to the proposed Project, due to replacing 1,700 DU of single family housing with 1,700 DU in active adult housing. This represents an approximate 15% reduction in offsite traffic, from 62,263 to 53,000 ADT. Due to the reduced offsite traffic volume, the

Project's impact on City and local circulation systems would be reduced, although traffic mitigation fees would also be reduced.

Mitigation measures would be required to reduce potential impacts to area roadways and intersections, similar to the proposed Project. Due to the reduced traffic volume, certain offsite improvements would either be reduced in magnitude or eliminated³. As with the proposed Project, significant and unavoidable impacts remain after mitigation measures are implemented, as many improvements are required outside of the jurisdiction of the City of Banning, and certain improvements may be infeasible due to existing development and/or constrained right-of-ways. As such, recommended mitigation for cumulative impacts cannot be ensured, particularly over the time span assumed for buildout. Cumulative impacts would remain potentially significant and unavoidable, similar to the proposed Project.

Based on the analysis, this Alternative would result in reduced traffic impacts as compared to the Project, although unavoidable significant impacts would remain.

Water Supply

This alternative would reduce demand on water resources due to a slight reduction associated with active adult housing in comparison to single family housing. It is assumed that the beneficial impacts associated with the realignment of Smith Creek and the proposed State Water Project water deliveries for storage and groundwater recharge would still occur under this alternative, thereby allowing for groundwater recharge. Existing City infrastructure would be upgraded or replaced, to ensure that adequate recycled water services are provided. Overall impacts related to water supply, including groundwater depletion, would be reduced with implementation of this alternative since the anticipated reduction is less than the amount of groundwater depletion anticipated, as compared to the proposed Project.

CONCLUSION

The Active Adult Land Use Plan Alternative would reduce the level of impact for various topical issues as identified above, due to the change in land use and reduction in public service/utility demand and offsite vehicle trips generated as supported above (refer to "Public Services and Utilities" and "Traffic and Transportation").⁴ Although overall impacts would be reduced compared to the proposed Project (refer to Table 6-1 below), the significant, unavoidable impacts of the Project related to aesthetics, air quality, climate change, noise, traffic and transportation, and water would still occur. This alternative would not meet the project objective of meeting market demands, since it would reduce the available supply of non-age restricted housing in the Project area, due to the amount of units restricted to "Active Adult"

³ Preliminary review by LSA indicates that improvements could be reduced at some Study Area locations (2, 18, 20, 27, 29, 31, 37 and 38) and may be eliminated at some Study Area locations (23, 28, 32, 35, and 42). Reduced offsite traffic improvements would reduce the extent of impacts related to these improvements.

⁴ Also, refer to footnotes 2 and 3, above, for more details regarding traffic reductions due to age restricted housing.

uses under this alternative. As a result this alternative would also limit the Project's ability to accommodate changes to the economic profile of the community, since fewer units would be available to adapt to these changing conditions.

Project objectives that would *not* be achieved under this alternative include:

2. **Update the Deutsch Specific Plan:** This alternative would not meet current and projected market conditions, since the high percentage of age-restricted units proposed onsite would reduce the ability of the remaining units to accommodate future development trends within the City.
4. **Provide a Wide Range of Housing Opportunities:** This alternative allows less flexibility to respond to changing market demand and the developing economic profile of the community, since a large portion of the site would be dedicated to the development of age-restricted housing. Under the proposed alternative, residents of any age (including those that qualify as active adults) could live in any planning area of the specific plan. Under the Active Adult alternative portions of the Project would preclude residents younger than 55 from establishing residence.

NO GOLF COURSE ALTERNATIVE

DESCRIPTION OF ALTERNATIVE

This alternative assumes that development of the golf course in Planning Areas 35 and 39 would not occur. This alternative assumes that other types of open space and recreational uses would be permitted as alternatives in the event the golf course is not developed due to market conditions or other considerations. These alternative uses include various combinations of parks, trails, native habitat, drainage facilities, water quality improvements, groundwater recharge areas, and wetland mitigation areas. The potential impacts of a "no golf course" Alternative is discussed below.

IMPACTS COMPARED TO THE PROPOSED PROJECT

Aesthetics, Light, and Glare

Development of a no golf course alternative within the Butterfield Specific Plan area would overall be similar to the proposed Project, with a similar development footprint, grading, and Smith Creek re-alignment. Short-term construction impacts would be similar to the Project, as mass grading of the site would occur, resulting in temporary exposure of onsite soils and construction equipment and debris, and views to the site during construction would occur from surrounding public vantage points. The landscaping would create more natural condition in Planning Areas 35 and 39 because grass turf area would be reduced and more natural soil would be exposed. There would be no clubhouse facility lighting or driving range lighting, however it is reasonable to assume that some safety lighting and/or decorative lighting may be constructed in certain parts of these planning areas. Although some lighting could be

introduced with this alternative, it is anticipated to be less intense than the proposed Project, resulting in less light and glare impacts. Therefore, impacts related to aesthetics, light, and glare would be similar, but there would be a reduction in light and glare under this alternative as compared to the proposed Project.

Agricultural Resources

Implementation of this alternative would result in similar impacts to agricultural resources as compared to the proposed Project, specifically related to conversion of Farmland of Local Importance to non-agricultural use.

Air Quality

The proposed alternative would result in less offsite trip generation and lower utility/service demand because of the elimination of the club house facility and golf course, thereby reducing the overall air emissions associated with motor vehicles, golf course maintenance vehicles, and energy demand. The mitigation program identified for the proposed Project would apply to this alternative; however, while impacts would be reduced with this alternative due to a reduction in traffic and energy demand, significant unavoidable air quality impacts would still occur due to site grading and operational emissions.

Biological Resources

If this alternative design utilizes the same type of development footprint, then impacts to biological resources would be similar in nature to the proposed Project. However, the eliminated golf course creates an opportunity to landscape the area with native vegetation, which would create more natural habitat for biological resources. As such, impacts associated with this Alternative would be reduced in comparison to the proposed project.

Climate Change

This alternative would have reduced offsite traffic, as well as reductions in electricity and natural gas demand, as well as indirect greenhouse gas emission generation from such factors as solid waste generation and water pumping because there would be no golf course facility for out of area visitors to travel to and use. This alternative would incorporate design features and implement reasonable and feasible mitigation measures similar to the proposed Project. Nonetheless, greenhouse gas impacts would remain significant and unavoidable, as with the proposed Project, considering the volume of emissions. Impacts with regard to climate change associated with this alternative would be slightly reduced as compared to the proposed Project, although it is anticipated that the significant and unavoidable impact would remain.

Cultural Resources

This alternative would result in similar impacts on historical, cultural, and paleontological resources as compared to the proposed Project, particularly with regard for unknown resources. As with the proposed Project, mitigation would be implemented to reduce potential impacts on such resources within and in the vicinity of the Project site to less than significant levels. Therefore, impacts on historical, cultural, and paleontological resources resulting from this alternative would be similar to those of the proposed Project.

Geology, Soils, and Seismicity

Development of this alternative would have equivalent impacts with regard to geology, soils and seismicity, if the alternative proposes a development footprint similar to what is proposed for the Project. All development would be subject to applicable Federal, State, and local codes, permits, and regulations pertaining to design requirements, as with the proposed Project, to reduce impacts to less than significant. Therefore, long-term impacts related to geology, soils, and seismicity would be similar compared to those resulting with the proposed Project.

Hazards and Hazardous Materials

The elimination of the golf course would reduce the amount of fertilizer and pesticides that are typically used to maintain a golf course, which would reduce potential hazardous materials impacts. However, due to a similar development footprint and overall similar development density, overall impacts would not be substantially different than that which would result with the Project.

Hydrology and Water Quality

Development of the Project site under this alternative would result in similar development footprint and impermeable surfaces, and therefore similar stormwater runoff from the developed portions of the Project site. This alternative would require grading and disturbance of a similar surface area, thereby resulting in a similar potential for erosion and siltation to occur as the result of exposed soils during construction. It is assumed that the implementation of this alternative would result in the drainage improvements to Smith Creek similar to those proposed with the Project, including the onsite infiltration areas, which together would provide for reduced potential for erosion and increased groundwater infiltration. Therefore, impacts on hydrology and water quality would be similar as compared to those of the proposed Project.

Land Use and Planning

This alternative would result in development of the Project site consistent with the existing Specific Plan designation. No conflicts with any applicable land use plan or habitat conservation plan would occur, nor would this alternative physically divide an established community.

Similar to the proposed Project, the existing agricultural land uses would be permanently converted to urban land uses, including residences, schools, parks, open space, and commercial uses. Impacts on land use and planning would therefore be similar to those of the proposed Project.

Noise

The reduced offsite vehicle trips due to the elimination of the golf course facility would have a corresponding reduction in offsite Project-related traffic noise, and would reduce the Project's contribution toward cumulative noise impacts, because the golf course facility (club house & driving range) would be eliminated and would not attract regional visitors. Noise caused by golf course maintenance vehicles (mowers and blowers) would be eliminated. Impacts on noise would therefore be slightly reduced as compared to those of the proposed Project, although significant cumulative noise impacts would remain due to existing, background growth and Project traffic noise.

Public Services and Utilities

This alternative would generate reduced demand for public services and utilities (water, sewer, electricity, and natural gas) due to reduced demand with the elimination of the golf course and related facilities. Under both the alternative and the proposed Project, City infrastructure would need to be upgraded or replaced to ensure adequate sewer and water services. Overall impacts regarding public services and utilities would be slightly reduced with this alternative as compared to the proposed Project.

Traffic and Transportation

Total net vehicle trip generation for this alternative would be slightly reduced due to the elimination of the golf course facility, because there would be no attraction that would cause more vehicle trips to the Project area. Due to the slightly reduced offsite traffic volume, the Project's impact on City and local circulation systems would be slightly reduced.

Mitigation measures would be required to reduce potential impacts to area roadways and intersections, similar to the proposed Project. As with the proposed Project, significant and unavoidable impacts remain after mitigation measures are implemented, as many improvements are required outside of the jurisdiction of the City of Banning, and certain improvements may be infeasible due to existing development and/or constrained right-of-ways. As such, recommended mitigation for cumulative impacts cannot be ensured, particularly over the time span assumed for buildout. Cumulative impacts would remain potentially significant and unavoidable, similar to the proposed Project.

Based on the analysis, this No Golf Course Alternative would result in slightly reduced traffic impacts as compared to the Project, although unavoidable significant impacts would remain.

Water Supply

This alternative would reduce demand on water resources due to the reduction associated with golf course water demand, club house water demand, and driving range water demand. These uses account for approximately 864 afy of potable and non-potable water demand of the proposed project. It is assumed that the beneficial impacts associated with the realignment of Smith Creek and the proposed State Water Project water deliveries for storage and groundwater recharge would still occur under this alternative, thereby allowing for groundwater recharge. Existing City infrastructure would be upgraded or replaced, to ensure that adequate recycled water services are provided. Overall impacts related to water supply, including groundwater depletion, would be reduced with implementation of this alternative, as compared to the proposed Project. However, the unavoidable significant impact identified under the proposed Project is expected to remain, since this Alternative would still require water consumption for 5,387 du.

CONCLUSION

The No Golf Course Alternative would reduce the level of impacts for various topical issues as identified above, due to the change in land use and reduction in public service/utility demand, water supply, and offsite vehicle trips generated (refer to Table 6-1 below for a comparison of impacts resulting from Project alternative). Although overall impacts would be reduced compared to the proposed Project, the significant, unavoidable impacts of the Project related to aesthetics, air quality, climate change, noise, traffic and transportation, and water would still occur. This alternative would eliminate the golf course, but would meet other basic Project objectives.

Project objectives that would *not* be achieved under this alternative include:

10. **Recreational Amenities:** This alternative would not provide one of the central amenities of the proposed Project, the golf course. However, in its place the Project would develop Planning Areas 35 and 39 with other types of open space and recreational uses (e.g., parks, trails, native habitat, drainage facilities, water quality improvements, groundwater recharge areas, and wetland mitigation areas).

6.6 ALTERNATIVES REJECTED FROM FURTHER CONSIDERATION

An EIR must briefly describe the rationale for selection and rejection of alternatives. The lead agency may make an initial determination as to which alternatives are feasible and therefore merit in depth consideration, and which are infeasible. Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, need not be considered (State CEQA Guidelines, Section 15126.6(f)(3)). This section identifies alternatives considered,

but rejected as infeasible, and provides a brief explanation of the reasons for their exclusion. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the Project objectives, are infeasible, or do not avoid any significant environmental effects (State CEQA Guidelines, Section 15126.6(c)). Alternatives considered that failed to meet the basic objectives of the proposed Project, or were deemed infeasible, and were thus eliminated from further consideration, are discussed below.

6.6.1 No Project/No Development Alternative

The No Project / No Development Alternative assumes that the proposed Butterfield Specific Plan Project would not occur, and the Project site would remain in its existing condition. No development would occur. The existing open space would remain, and the owner may continue the limited cattle grazing activities. No residential development, landscaping, infrastructure, commercial, public or private recreational facilities would be constructed or implemented. It is important to note that this Alternative does not reflect the landowner/Applicant's current entitlement as set forth in the Deutsch Specific Plan. The site is designated for development in a manner generally consistent with the proposed Project, the City's General Plan reflects this designation, and there have been no indications by City staff, elected officials or the public through the EIR scoping process that there is a desire to repurchase the site from the owner to preserve it as permanent open space.

The No Project / No Development Alternative does not meet any of the basic Project objectives because it does not implement a comprehensive and cohesive plan for the physical and economic development of the property, does not provide a variety of residential uses oriented toward many types of incomes and stages of life, does not provide enhanced recreational amenities or establish a community plan that would provide well-integrated and compatible land uses, and does not provide adequate drainage flood control and water quality improvements. The No Project/No Development Alternative would also be inconsistent with the City's Housing Element and General Plan, would fail to provide increased revenue, employment and housing opportunities within the City, and would not provide the various infrastructure and service improvements associated with the Project (such as two new schools, a reserved fire station site, a new satellite wastewater treatment plant site, and offsite drainage and road improvements). For these reasons, this alternative has been rejected from further consideration.

6.6.2 Alternative Site Alternative

The Alternative Site Alternative proposes that the proposed Project be built at an alternative location within the City of Banning; however, there are no available sites within the City that would accommodate the size, density, and amenities of the proposed Project while maintaining proximity to downtown Banning, and the feasibility of the applicant be able to assemble a site of similar size within a reasonable time frame is questionable. Currently, there are other land

development projects underway that require large tracts of land, and available land within the City is physically incapable of accommodating the size and/or density of the proposed Project. Furthermore, this alternative would not achieve the Project objectives of updating the previously-approved 1993 Deutsch Property Specific Plan based on changes of circumstances and market conditions, or of implementing a comprehensive and cohesive plan for the physical and economic development of the property. For the above reasons, the Alternative Site Alternative was rejected from further consideration.

6.7 CONCLUSION AND IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126(d) of the State CEQA Guidelines indicates that an analysis of alternatives to the proposed project shall identify one alternative to the project as the environmentally superior alternative. Table 6-1 below provides a summary matrix that compares the impacts associated with the Project with the impacts of each of the proposed alternatives. Of the alternatives analyzed in this EIR, the Reduced Density Alternative is considered environmentally superior overall.

Although superior in reducing environmental impacts (refer to Section 6.5, subsection "Reduced Density (20% Reduction) Alternative", above for analysis of impacts regarding relevant CEQA topical areas), it would still have the same types of significant and unavoidable impacts. Even with a 20% reduction in project size and design changes, there would still be significant and unavoidable project impacts associated with light and glare, construction and operational air quality, Air Quality Management Plan (AQMP) consistency, and traffic and cumulative impacts associated with light and glare, operational air quality, climate change, mobile source noise, and traffic. Also, by reducing the density of the project by approximately 20%, the reduced density would not fulfill certain objectives to the same degree as the proposed Project.

Table 6-1
Comparison of Impacts Resulting from Project Alternatives
As Compared to the Proposed Project

Impact	No Project/No Development¹	No Project/Existing Specific Plan Alternative	Reduced Density – 20% Reduction Alternative	Active Adult Community Alternative	No Golf Course Alternative
Aesthetics, Light, and Glare	Reduced	Greater	Reduced	Similar	Reduced
Agricultural Resources	Reduced	Similar	Similar	Similar	Similar
Air Quality	Reduced	Reduced	Reduced	Reduced	Reduced
Biological Resources	Reduced	Greater	Similar	Similar	Reduced
Climate Change	Reduced	Similar/Greater	Reduced	Reduced	Reduced
Cultural Resources	Reduced	Greater	Similar	Similar	Similar
Geology, Soils, and Seismicity	Reduced	Greater	Reduced	Reduced	Reduced
Hazards and Hazardous Materials	Reduced	Similar	Similar	Similar	Reduced
Hydrology and Water Quality	Reduced	Greater	Reduced	Similar	Similar
Land Use and Planning	Greater	Similar/Greater	Similar	Similar	Similar
Noise	Reduced	Similar	Reduced	Reduced	Reduced
Public Utilities and Services	Reduced	Greater	Reduced	Reduced	Reduced
Traffic and Transportation	Reduced	Reduced	Reduced	Reduced	Reduced
Water Supply	Reduced	Reduced	Reduced	Reduced	Reduced

¹ This alternative has been rejected from further consideration.

SECTION 7.0

EFFECTS FOUND NOT TO BE SIGNIFICANT

7.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

In the course of this evaluation, certain impacts of the Project were found not to be significant due to the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this nature. The following section provides a brief description of effects found not to be significant based on the analysis conducted through the EIR preparation process. Several issues indicated as “No Impact” are nonetheless addressed in the EIR as a matter of clarification or convenience for the reader.

7.1.1 AGRICULTURAL AND FORESTRY RESOURCES

- c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).*

No Impact. The site is not zoned for Timberland Production, nor is it considered designated forest land.

- d) *Result in the loss of forest land or conversion of forest land to non-forest uses?*

No Impact. Refer to response 7.1.1 (c) above. The Project will not affect forest land or conversion of forest land.

7.1.2 AIR QUALITY

- e) *Create objectionable odors affecting a substantial number of people?*

Less Than Significant Impact. Project construction and operation would generate odors typical of a residential/commercial development. Odors from private and public uses are regulated by the City’s Municipal Code as well as SCAQMD. Section 4.3, Air Quality, addresses potential odor concerns related to the optional satellite wastewater treatment plant.

7.1.3 BIOLOGICAL RESOURCES

- d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

No Impact. The Project site is primarily characterized by vacant land and is currently used for intermittent livestock grazing. With the existing developed areas to the north, west and south,

onsite surveys have found no evidence of wildlife corridors or habitat linkages. Regionally, wildlife movement occurs in the San Bernardino Mountain foothills to the north and east of the site.

Residential and commercial development west and south of the site prevents wildlife movement from those directions. No impacts are anticipated in this regard.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The City of Banning executed the Implementing Agreement with the County on November 23, 2003 and adopted Ordinance 1304 on November 12, 2003, which amended its Municipal Code to establish procedures and requirements for the implementation of the MSHCP. A MSHCP Consistency Analysis is required for all discretionary projects within jurisdictions of MSHCP co-permittees such as the City of Banning. The City requires the evaluation of potential biological resources impacts on a project-by-project basis through the Initial Study process. Applicable plans and policies related to Biological Resources are discussed in Section 4.4, *Biological Resources*.

7.1.4 GEOLOGY, SOILS AND SEISMICITY

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Less Than Significant Impact. The proposed Project includes implementation of a wastewater conveyance system, which will be connected to an on-site satellite wastewater treatment plant, which would be located within PA 11 in the southeastern corner of the Project area. This plant will then connect to the City's backbone sewer system, which is connected to the City's existing wastewater treatment plant. Therefore, impacts related to soils incapable of supporting septic tanks or alternative wastewater disposal systems are not relevant and therefore not considered to be a significant impact.

7.1.5 HAZARDS AND HAZARDOUS MATERIALS

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The Banning Municipal Airport is located over three miles from the closest portion of the Project area. No other airports or private airstrips are located within two miles of the Project area. Accordingly, impacts would not be significant in regard to airport-related hazards.

f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

No Impact. Refer to response 7.1.5 (e), above. The nearest Airport is over three miles from the Project area. Therefore, no significant impacts are anticipated in this regard, and no mitigation measures are required.

7.1.6 MINERAL RESOURCES

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

No Impact. According to the City's *General Plan*, the Project area is located in Mineral Resource Zone 3, which is an area containing mineral deposits, the significance of which cannot be evaluated from available data. No classified or designated mineral deposits of Statewide or regional significance are known to occur within the Project Area. Therefore, no impacts are anticipated in this regard.

b) *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

No Impact. The Project area has not been delineated as an important mineral resource recovery site within the City's *General Plan*. Therefore, no mineral impacts are anticipated in this regard.

7.1.7 NOISE

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. The Banning Municipal Airport is located over three miles from the closest portion of the Project area. No other airports or private airstrips are located within two miles of the Project area. Accordingly, impacts would not be significant in regard to airport-related noise.

f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. Refer to response 7.1.7 (e), above. The nearest Airport is over three miles from the Project area. Therefore, no significant impacts are anticipated in this regard, and no mitigation measures are required.

7.1.8 POPULATION AND HOUSING

- a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Refer to Section 5.2, *Growth-inducing Impacts*.

- b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The proposed Project would not result in a displacement of existing housing as the Project site is used intermittently for agriculture and livestock grazing and is vacant. As the site is currently vacant, the construction of replacement housing would not be required as a result of implementation of the Project.

- c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

No Impact. As noted above, the Project site is currently vacant. The displacement of substantial numbers of people would not occur as a result of Project implementation, and the construction of replacement housing elsewhere would not be required.

7.2 POTENTIAL SECONDARY EFFECTS

Section 15126.4(a)(1)(D) of the State CEQA Guidelines require that “if a mitigation measure would be caused by the project as proposed, the effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed.” With regard to this section of the State CEQA Guidelines, the potential impacts that could result with the implementation of each mitigation measure proposed for the project was reviewed. The following provides a discussion of the potential secondary impacts that could occur as a result of the implementation of the measures by environmental issue area.

7.2.1 AESTHETICS, LIGHT, AND GLARE (REFER TO SECTION 4.1 OF THIS DRAFT EIR)

Mitigation Measures AES-1 through AES-3 and AES-5 and AES-6 would be implemented during construction of the project and, thus would be temporary in nature. Generally, mitigation measures are prescribed to minimize visual impacts due to site grading construction staging, and the potential accumulation of debris. Impacts that would result from implementation of these measures have been included in the analyses of the project

construction impacts in each of the environmental issue areas addressed in Chapter 4.0 of this Draft EIR. As such, their implementation would not cause potential secondary effects on the environment.

In addition, the mitigation measure identified for project operation (Mitigation Measure AES-4) is prescribed to prevent the deterioration of project design elements (i.e., perimeter walls, fencing, landscape) and maintain a visually pleasing project site through the removal of weeds, trash, and graffiti. While this measure would require varying levels of maintenance activities, which could result in air quality, noise, and traffic impacts, these operational activities were assumed in each of the environmental analyses in Chapter 4.0 of this Draft. As such, their implementation would not cause potential secondary effects on the environment.

7.2.2 AGRICULTURAL RESOURCES (REFER TO SECTION 4.2 OF THIS DRAFT EIR)

No mitigation measures are required relative to agricultural resources. Therefore, no significant secondary impacts would occur in this regard.

7.2.3 AIR QUALITY (REFER TO SECTION 4.3 OF THIS DRAFT EIR)

Mitigation Measures AQ-1 through AQ-7 would be implemented during construction of the project and, thus would be temporary in nature. Generally, construction mitigation measures are prescribed to minimize emissions by controlling fugitive dust, regular maintenance of construction equipment, limiting idling of construction trucks and vehicles, suspension of construction equipment operations during first stage smog alerts, use of electricity rather than diesel or gasoline where practicable, and compliance with applicable SCAQMD rules and regulations. Because these measures represent procedural actions and would not result in physical changes to the environment, none of the measures would result in significant secondary impacts.

7.2.4 BIOLOGICAL RESOURCES (REFER TO SECTION 4.4 OF THIS DRAFT EIR)

Mitigation Measures BIO-1 through BIO-5 would be implemented before and during construction of the project and, thus, would be temporary in nature. Construction mitigation measures are intended to minimize impacts to biological resources through demonstration of compliance with the Migratory Bird Treaty Act requirements and the MSHCP. In addition, construction mitigation requires preconstruction surveys for burrowing owl, jurisdictional waters compensation, and other construction-related avoidance and minimization efforts (e.g., exotic weed removal, regular watering). Some of these measures represent procedural actions, such as Mitigation Measures BIO-1, BIO-2, and BIO 4 and would not result in physical changes to the environment. Mitigation Measures BIO-3 and BIO-5, while resulting in physical changes,

were included in the analyses of the project construction impacts in each of the environmental issue areas addressed in Chapter 4.0 of this Draft EIR. As such, none of the measures would result in significant secondary impacts.

7.2.5 CLIMATE CHANGE (REFER TO SECTION 4.5 OF THIS DRAFT EIR)

Mitigation Measures GHG-1 through GHG-3 generally involves conservation measures to reduce the projects impact of greenhouse gas (GHG) emissions. These measures involve adherence to green building practice, promotion of renewable energy sources, and accommodation of transit along arterial streets.

Mitigation Measures GHG-1 through GHG-3, while resulting in physical changes, were included in the analyses of the project construction and operation impacts in each of the environmental issue areas addressed in Chapter 4.0 of this Draft EIR. Because these measures represent a reduction in GHG emissions and would not result in adverse physical changes to the environment, none of the measures would result in significant secondary impacts.

7.2.6 CULTURAL AND HISTORIC RESOURCES (REFER TO SECTION 4.6 OF THIS DRAFT EIR)

Mitigation Measures CUL-1 through CUL-4 would be implemented during construction of the project and would be temporary in nature. Mitigation Measures NOI-1 through NOI-4 involve the preparation of detailed monitoring plans and procedures for avoidance or recovery of incidental cultural finds. These are considered procedural actions to ensure that cultural impacts are reduced to a minimum. As such, these measures would not result in direct physical changes to the environment. Their implementation would not cause potential secondary effects on the environment.

7.2.7 GEOLOGY, SOILS, AND SEISMICITY (REFER TO SECTION 4.7 OF THIS DRAFT EIR)

Mitigation Measures GEO-1 through GEO-2 would be implemented prior to and during construction of the project and would be temporary in nature. Mitigation Measures GEO-1 through GEO-2 involve the preparation of a detailed analysis of site geotechnical conditions, field investigation and slope stability analyses, and requires compliance to the most-current applicable seismic standards and design Criteria, as determined by the City and Structural Engineers Association of California. These are considered procedural actions to ensure that the potential for impacts due to geologic hazards are reduced to a minimum. As such, these measures would not result in direct physical changes to the environment. Their implementation would not cause potential secondary effects on the environment.

7.2.8 HAZARDS AND HAZARDOUS MATERIALS (REFER TO SECTION 4.8 OF THIS DRAFT EIR)

The hazards and hazardous material mitigation measures generally involve the methods to address, remove and/or handle hazardous waste associated with Project construction. These measures also involve the closure of the onsite abandoned well, avoidance of natural gas pipelines, upgrade of existing high-pressure gas lines, and installation of any temporary above ground fuel storage tank. They represent procedural methods and regulatory compliance to ensure that the potential for impacts due to hazardous materials are reduced to a minimum. Also, they would occur during construction of the project and would be temporary in nature. These measures were included in the analyses of the project construction impacts. Their implementation would not cause potential secondary effects on the environment.

7.2.9 HYDROLOGY AND WATER QUALITY (REFER TO SECTION 4.9 OF THIS DRAFT EIR)

Mitigation Measure HWQ-1 would be implemented prior to and during construction of the project and would be temporary in nature. The majority of the measure involves the adequate design of applicable Tentative Tract Maps (TTMs), site plans, grading plans, and/or improvement plans for flood protection and is considered a procedural action to ensure that flooding and drainage do not impact nearby uses. In addition, the final point (#7) of the mitigation measure requires temporary basins and earthen channel/berms to divert and convey flows during construction phases. This measure was included in the analyses of the project construction impacts. Therefore, this measure would not result in potential secondary effects on the environment.

7.2.10 LAND USE AND PLANNING (REFER TO SECTION 4.10 OF THIS DRAFT EIR)

No mitigation measures are required relative to land use and planning. Therefore, no significant secondary impacts would occur in this regard.

7.2.11 NOISE (REFER TO SECTION 4.11 OF THIS DRAFT EIR)

Mitigation Measures NOI-1 through NOI-5 would be implemented during construction of the project and would be temporary in nature. In addition, the impacts that would result from implementation of these measures have been included in the analyses of the project construction impacts in each of the environmental issue areas addressed in Chapter 4.0 of this Draft EIR. Mitigation Measure NOI-4 involve the preparation of detailed acoustical analyses,

which are considered procedural actions to ensure that noise levels at sensitive receptor location are reduced to a minimum. As such, these measures would not result in direct physical changes to the environment, and, as such, their implementation would not cause potential secondary effects on the environment.

7.2.12 PUBLIC SERVICES AND UTILITIES (REFER TO SECTION 4.12 OF THIS DRAFT EIR)

Mitigation Measure PSU-1 involves the potential development of a fire response unit or fire station conceptually located within Planning Area 60. This project element is included within the Project Description of this Draft EIR and, thus, analyzed by each environmental issue area in Chapter 4.0. As such, this measure would not result in potential secondary effects on the environment. Mitigation Measure PSU-2 includes the US Department of Housing and Urban Development Office of Policy Development and Research requirements regarding defensible space.

Mitigation Measure PSU-3 involves procedures for fair market compensation for land acquisition and requires the preparation of general biological assessments for offsite improvements. Lastly, Mitigation Measure PSU-4 requires the Golf Course to prepare and implement an Operational Waste Management Plan to properly manage green waste. Mitigation Measures PSU-2 through PSU-4 are considered procedural actions to ensure that biological, socioeconomic, landfill and police service impacts are reduced to a minimum. As such, these measures would not result in potential secondary effects on the environment.

7.2.13 TRAFFIC AND TRANSPORTATION (REFER TO SECTION 4.13 OF THIS DRAFT EIR)

The traffic mitigation measures require the Project to either pay its fair share contribution to implementation of intersections and other transportation improvements in the project vicinity or construct these improvements in order to provide access to the project. No significant effects would result from payment of fees. However, the physical improvement that would result from the payment of fair share contributions or construction of these improvements directly, such as restriping, installing a traffic signal, or widening, may result in potential secondary effects. In particular Mitigation Measure TRF-1 may necessitate some right-of-way acquisition. These traffic measures would require varying levels of construction activities, which could result in air quality, noise, and traffic impacts. As these improvements are designed and implemented, appropriate construction practices intended to minimize impacts would be required. For example the implementation of best management practices with regard to erosion, the water of construction sites, the use of property operating equipment, and the use of noise reduction devices would minimize environmental impacts. In addition, traffic flow during construction of the improvements would be considered by the appropriate agency.

7.2.14 WATER SUPPLY (REFER TO SECTION 4.14 OF THIS DRAFT EIR)

Mitigation Measure WS-1 requires the Project to ensure pumping impacts in the vicinity of the Cabazon and Beaumont Basin wells do not have any adverse impacts on water levels in adjacent wells not owned and operated by City of Banning. This could potentially be achieved by providing funding to affected parties to deepen existing wells or through the delivery of comparable or improved quality and quantity of water from other sources.

The physical improvement that would result from these options, such as the construction of improved wells or installation of offsite conveyance facilities to deliver alternative sources of water, may result in potential secondary effects. In particular, Mitigation Measure WS-1 may necessitate right-of-way acquisition for delivery infrastructure. These measures would require varying levels of construction activities, which could result in air quality, noise, biological, and traffic impacts. As these improvements are designed and implemented, appropriate construction practices intended to minimize impacts would be required. In addition, if conveyance facilities are necessary, a general biological assessment will be conducted for these facilities. If sensitive resources are determined to be present, those resources will be assessed and/or delineated, at which point mitigation measures will be developed and imposed.

SECTION 8.0

ORGANIZATIONS AND PERSONS CONSULTED

8.1 LEAD AGENCY

CITY OF BANNING COMMUNITY DEVELOPMENT DEPARTMENT

Ms. Zai Abu Bakar, Community Development Director
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8.2 APPLICANT

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8.3 CONSULTANTS

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Ms. Ellen Michiel, Environmental Analyst
Ms. Jackie Vandenberg, Environmental Analyst
Mr. Matt Hicks, PE, Civil Engineer
Ms. Monica Kling, Environmental Analyst
Ms. Nicole Marotz, Environmental Analyst
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Mr. Pritam Deshmukh, Traffic Consultant
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Mr. Stephen Marquadt, Cultural Resource Consultant
Mr. Joseph Brunzell, Cultural Resource Consultant
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(JURISDICTIONAL DELINEATION)

Mr. Martin Rasnick

SECTION 9.0 BIBLIOGRAPHY

- AMEC, *Banning General Plan Updated Biological Report*, 2004.
- American Society of Civil Engineers, *Perspectives in Civil Engineering: Commemorating the 150th Anniversary of the American Society of Civil Engineers*, 2003 (edited by Jeffrey S. Russell).
- Association of Environmental Professionals AEP 2010 Conference, *Building Information Modeling and Integrated Project Delivery* presented by Ron Moreno, 2010.
- Brown, K. *Discussion of Agricultural Preserve Boundaries*. Correspondence with County of Riverside Planning Department on January 17, 2008.
- California Air Pollution Control Officers Association, *CEQA and Climate Change*, January 2008.
- California Air Resources Board, *Air Quality Data Summaries*, available online at www.arb.ca.gov.
- California Air Resources Board, *Staff Report - California 1990 Greenhouse Gas Emissions Level and 2020 Emission Limit*, November 16, 2007.
- California Air Resources Board, *Climate Change Program*. Accessed 21 September 2010
<http://www.arb.ca.gov/cc/cc.htm>.
- California Air Resources Board, *Draft List of Early Action Measures To Reduce Greenhouse Gas Emissions In California Recommended For Board Consideration*, September 2007.
- California Air Resources Board, *Assembly Bill 32 Scoping Plan*, 2008.
- California Air Resources Board, *Aerometric Data Analysis and Measurement System (ADAM)*, summaries from 2007 to 2009. <<http://www.arb.ca.gov/adam>>
- California Air Resources Board, *Climate Change Proposed Scoping Plan: A Framework for Change*, adopted December 2008.
- California Air Resources Board, *Fact Sheet, Climate Change Emission Control Regulations*. Accessed 1 July 2009. <http://www.arb.ca.gov/cc/ccms/factsheets/cc_newfs.pdf>
- California Air Resources Board, *Greenhouse Gas Inventory 2020*. Accessed 1 July 2009.
<<http://www.arb.ca.gov/cc/inventory/data/forecast.htm>>
- California Building Code section 16135.6.1, Table 16135.6(1) and (2), Accessed 12 August 2010.
<http://napasolanoicc.org/PDF_Files/Seismic%20Design%20Category%2006%20IBC_.pdf>
- California Climate Action Registry, *General Reporting Protocol*, version 3.1, January 2009.
- California Climate Action Team, *Report to Governor Schwarzenegger and the California Legislature*, 2006. Accessed 1 July 2009
<http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF>
- California Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, August 2000.
- California Department of Conservation Division of Mines and Geology, *Seismic Hazards Mapping Act Fact Sheet*. Accessed January 2008. <http://gmw.consrv.ca.gov/SHMP/webdocs/fact_sheet.pdf>
- California Department of Conservation, *Farmland Mapping and Monitoring Data Field Report*, 2004. Accessed 28 June 2010. <http://redirect.conservation.ca.gov/dlrp/fmmp/pubs/2002-2004/field_reports/riv04.pdf>.

- California Department of Conservation, *Farmland Mapping and Monitoring Data Field Report*, 2002. Accessed 28 June 2010. <http://redirect.conservation.ca.gov/dlrp/fmmp/pubs/2000-2002/field_reports/riv02.pdf>
- California Department of Conservation, *California Geologic Survey*. Assessed January 2008. <http://gmw.consrv.ca.gov/SHMP/webdocs/fact_sheet.pdf>
- California Department of Conservation, *Farmland Mapping and Monitoring Data Riverside County Important Farmland Map 2008*. Accessed 3 March 2011. <http://redirect.conservation.ca.gov/DLRP/fmmp/product_page.asp>
- California Department of Conservation, Farmland Mapping and Monitoring Program, *Farmland of Local Importance Definition*, 2004. Accessed 19 October 2010 from http://www.dera.sacounty.net/portals/0/docs/EnvDocs_Notices/200400961720090401114732.pdf.
- California Department of Conservation, *Riverside County Important Farm Land 2008, Sheet 1 of 3*, 2008. Accessed 19 October 2010 <<http://redirect.conservation.ca.gov/dlrp/fmmp/pubs/2008/riv08.pdf>>
- California Department of Conservation, *Farmland Reference FTP site*. <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/>
- California Department of Conservation, *Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance – Riverside County*. Accessed 19 October 2010. <http://www.conservation.ca.gov/dlrp/fmmp/pubs/soils/Documents/RIVERSIDE_ssurgo.pdf>
- California Department of Finance, 2007, <<http://www.dof.ca.gov/default.asp>>.
- California Department of Finance, *E5 City/County Population and Housing Estimates*, 2006. Revised 2001-2006 with 2000 DRU Benchmark, January 2006.
- California Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2001-2010, with 2000 Benchmark*, May 2010.
- California Department of Forestry and Fire Protection- Riverside Unit, *Riverside Unit Fire Management Plan 2005*, Assets at Risk Assessment – Battalion 3 (Beaumont) pp 14, 2005.
- California Department of Forestry and Fire Protection, *General Guidelines for Creating Defensible Space*, p.3, 2006.
- California Department of Forestry and Fire Protection, *Guidelines for Fire Hazard Zoning Review and Validation*. Accessed 9 December 2010. <http://www.frap.fire.ca.gov/projects/hazard/FHSZ_review_instructionsv1_3b.pdf>
- California Department of Forestry and Fire Protection, *Very High Fire Hazard Severity Zones in LRA*, as recommended by Cal Fire 1/2010. Accessed 23 July 2010. <http://frap.cdf.ca.gov/webdata/maps/riverside_west/fhszl_map.60.pdf>
- California Department of Transportation. *Frequently Asked Questions California Scenic Highway Program*. Accessed 12 July 2010. <<http://www.dot.ca.gov/hq/LandArch/scenic/faq.htm>>
- California Department of Water Resources. *California's Groundwater Bulletin 118 – Coachella Valley Basin, San Geronio Pass Subbasin*, updated February 27, 2004. Accessed 1 August 2010. <http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/7-21.04.pdf>

-
- California Department of Water Resources, *Climate Change*. Accessed 21 September 2010.
<<http://www.water.ca.gov/climatechange/>>
- California Employment Development Department, Labor Market Information Division, *Detailed Agricultural Employment and Earnings Data*, 2009. Accessed 25 June 2010.
<www.edd.ca.gov>
- California Employment Development Department, Labor Market Information Division, *California's Agricultural Employment Report 2008*. Accessed 25 June 2010.
<www.calmis.ca.gov/file/agric/ca-agprofile>
- California Employment Development Department, *2006-2016 Riverside and San Bernardino Counties Projection Highlights*. <www.labormarketinfo.edd.ca.gov August 2010. >
- California Energy Commission, *Water Energy Use in California*. Accessed October 2009.
<http://www.energy.ca.gov/research/iaw/industry/water.html>
- California Energy Commission, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004, Staff Final Report*, Publication CEC-600-2006-013-D, December 2006.
- California Environmental Protection Agency, *Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature (Executive Summary)*, March 2006.
- California Environmental Protection Agency, *AB 1493 Briefing Package*, 2008.
- California Environmental Quality Act. Accessed July 2010.
<http://ceres.ca.gov/ceqa/docs/Adopted_Text_of_SB97_CEQA_Guidelines_Amendments.pdf>
- California Integrated Waste Management Board. Accessed 12 December 2007.
<www.ciwmb.ca.gov>
- California Integrated Waste Management Board, *Assessments for Solid Waste Impacts*, September 1992.
- California Natural Resources Agency, *2009 California Climate Adaptation Strategy*, 2009.
<<http://www.energy.ca.gov/2009publications/CNRA-1000-2009-027/CNRA-1000-2009-027-F.PDF>>
- California Office of the Attorney General. *Sustainability and General Plans: Examples of Policies to Address Climate Change*. Updated January 22, 2010.
- California Office of Planning and Research, CA, *General Plan Guidelines*, October 2003.
- California Office of Planning and Research, *CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, 2008. Accessed on 23 October 2008. <<http://opr.ca.gov/index.php?a=ceqa/index.html>>
- California Public Library Organization, *Appendix A*, 2007. Accessed 23 August 2010
<<http://www.library.ca.gov/lds/docs/CAPubLibOrgRpt.pdf>>
- Cal Recycle, *Regulations: Title 14, Natural Resources- Division 7, CIWMB, Chapter 3, Article 5.95*. Accessed 10 December 2010.
<<http://www.calrecycle.ca.gov/Laws/Regulations/Title14/ch3a595a.htm>>
- California Regional Water Quality Control Board, Colorado River Basin Region, *Water Quality Control Plan for the Colorado River Basin – Region, Region 7 Index (Colorado River Basin Maps)*, June 2006 Update. Accessed 30 July 2010.

- <http://www.waterboards.ca.gov/coloradoriver/publications_forms/publications/docs/basinplan_2006.pdf>
- California State Board of Forestry and Fire Protections, *General Guidelines for Creating Defensible Space*, 2006, p 3
- California State Board of Forestry and Fire Protections, *Very High Fire Hazard Severity Zones in LRA, as recommended by Cal Fire 1/2010*. Accessed on 23 July 2010.
<http://frap.cdf.ca.gov/webdata/maps/riverside_west/fhszl_map.60.pdf>
- California State Mining and Geology Board. Accessed January 2008.
<http://www.consrv.ca.gov/CGS/rghm/ap/Pages/t_14_3600.aspx>
- California State Park- Office of Historic Preservation. Accessed January 2007.
<http://ohp.parks.ca.gov/default.asp?page_id=21238>
- California State Water Resources Control Board.
<http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml>
- California Stormwater Quality Association, *2009 Construction BMP Handbook*. Accessed 10 March 2011. <<https://www.casqa.org/casqastore/entity/tabid/169/c-4-best-management-practice-bmp-handbooks.aspx>>
- California Weather Profiles/ Banning, CA Weather. Accessed 28 July 2010.
- Carollo Engineers, *City of Banning Recycled Water Master Plan*, September 2006.
- CAPCOA, *CEQA and Climate Change white paper*, January 2008.
- CAPCOA, *Model Policies for Greenhouse Gases in General Plans: A Resource for Local Government to Incorporate General Plan Policies to Reduce Emissions of Greenhouse Gases*, 2009. <
<<http://www.capcoa.org/wp-content/uploads/2010/09/CAPCOA-Quantification-Report-9-14-Final.pdf>>
- CEQAnet Database. Accessed July 2010. < <http://www.ceqanet.ca.gov/ProjectList.asp>>
- City of Banning, *10-Year Electric System Master Plan 2004-2014*, Section 1, *Exhibit 1-2 Proposed Developments for the City of Banning, City of Banning Development Projects Table*, December 2004. Accessed 3 September 2010.
<<http://www.ci.banning.ca.us/DocumentView.aspx?DID=597>>
- City of Banning Planning Department, *Discussion of current projects in the area*. Correspondence on July 20, 2010 and July 21, 2010.
- City of Banning Library Services. Accessed 6 July 2010. < [Bld.lib.ca.us](http://bld.lib.ca.us)>
- City of Banning and Terra Nova Planning & Research, Inc., *City of Banning General Plan*. January 31, 2006.
- City of Banning and Terra Nova Planning & Research, Inc., *Environmental Impact Report for the City of Banning Comprehensive General Plan and Zoning Ordinance*, June 2005.
- City of Banning, *City of Banning Zoning Ordinance*, Adopted January 31, 2006.
- City of Banning Unified School District.
- City of Banning Water/Wastewater Utilities Department, *IS/MND Wastewater Treatment Plant Expansion and Phase 1 Recycled Water System*, May 2008. Accessed 23 August 2010.
<<http://banning.ca.us/DocumentView.aspx?DID=473>>
- City of Banning, *Urban Water Management Plan*, 2005 <<http://www.scag.ca.gov/rcp/uwmp.htm>>

-
- City of Banning Website. <<http://www.ci.banning.ca.us/>>
- City of Banning Police Department Website. Accessed 13 July 2010.
<<http://www.banningpolice.org/>>
- City of Banning Public Works Department, Grading Standards, *Ordinance No. 1388 Grading Manual*, August 13, 2009.
- City of Beaumont, *Discussion of current projects in the area*. Correspondence with Rebecca Deming on July 19, 2010.
- City of Beaumont Unified School District. Accessed 30 June 2010.
<www.beaumontusd.k12.ca.us>
- City of Beaumont Unified School District, *Final Mitigated Negative Declaration, Beaumont High School Expansion Sports Complex and Administrative Center*, March 2010. Accessed 21 August 2010<https://beaumont-ca.schoolloop.com/cms/page_view?d=x&piid=&vpid=1262503190764>
- City-Data- *Crime in Banning, CA*, Accessed 18 August 2010, <<http://www.city-data.com/crime/crime-Banning-California.html>>
- Colorado River Basin Regional Water Quality Control Board. Accessed 25 August 2010
<<http://www.swrcb.ca.gov/rwqcb7/>>
- Converse Consultants, *Phase I Environmental Site Assessment Report*, February 28, 2002.
- Converse Consultants, *Technical Memorandum – Hazardous Materials Review, Butterfield Specific Plan*, March 12, 2007.
- Converse Consultants, *Technical Memorandum – Hazardous Materials Review, Butterfield Specific Plan, 19.1 Acres*, March 12, 2007.
- County of Riverside , *ALUCP-East County Airports Background Data Banning Municipal Airport, Chapter EI, Background Data pp.E1-8 (Exhibit BN-7)*, October 2004.
- County of Riverside, *Riverside County Comprehensive General Plan*. March 6, 1984.
- County of Riverside, *Riverside County Integrated Project General Plan*, October 7, 2003.
- County of Riverside Fire Department
- County of Riverside Fire Department, *Correspondence with Chief Jeff Stowells on 8/18/2010*.
- County of Riverside Fire Department (Banning Fire Services), *Standard Fire Department Requirements for “Fuel Modification Zones” and Construction Improvements for projects in or adjacent to Wildland Areas”*.
- County of Riverside Flood Control District, *Frequently Asked Questions – Flood Zone*. Accessed 28 July 2010. <<http://www.floodcontrol.co.riverside.ca.us/content/RegFZFAQ.htm#5>>
- County of Riverside Land Use Compatibility Plan, *East County Airports: Banning Municipal Airports and Environs*, October 2004.
- County of Riverside Land Use Information System, *Community Base Map- Banning and Assessor’s Parcel Numbers*. Accessed 3 March 2011.
<<http://www3.tlma.co.riverside.ca.us/pa/rclis/viewer.htm>>
- County of Riverside Office of Agriculture, Agricultural Commissioner’s Office, *Riverside County 2008 Agricultural Production Report*, 2008. Accessed 25 June 2010.
<<http://www.rivcoag.org/opencms/publications/>>

-
- County of Riverside, *Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) Part 1 and II, Updated March, City of Banning Inventory (Part II)*, 2005.
- County of Riverside, *Riverside County Integrated Program General Plan Environmental Impact Report*. October 7, 2003.
- County of Riverside Integrated Project, 2002. <www.rcip.org>.
- County of Riverside Waste Management, *Landfill Information as of January 1, 2010*.
- County of Riverside, *Western Riverside Multi-Species Habitat Conservation Plan*, 2003.
- Draft Deutsch Banning Specific Plan EIR, SCH90020698 Agriculture Resources p 49, 1992
- DigAlert, *Underground Service Alert of Southern California*. Accessed 10 December 2010.
<<http://www.digalert.org/index.asp>>
- Earth Consultants International, *Technical Background Report to the Safety Element, City of Banning, CA, Fire Hazards*, pp.4-10-4-14, 2004.
- Federal Emergency Management Agency, *Letter of Map Amendment (LOMA) and Letter of Map Revision Based on Fill (LOMR-F) Process*. Accessed 28 July 2010.
<http://www.fema.gov/plan/prevent/fhm/fmc_loma>
- Federal Highway Administration, *Roadway Construction Noise Model (FHWA – HEP – 05-054*, January 2006.
- Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006.
- Geocon Inland Empire Inc., *Fault Rupture Hazard Investigation*. November 9, 2005.
- Geocon Inland Empire Inc., *Geotechnical Investigation*. June 29, 2005.
- Geocon Inland Empire Inc., *Fault Rupture Hazard Investigation, Deutsch Property Highland Springs Avenue and Wilson Street, Banning, California*, November 9, 2005, Site Vicinity Map.
- Geocon Inland Empire Inc., *Geotechnical Investigation for the Deutsch Property Highland Springs Avenue and Wilson Street, Banning California*, June 2005.
- Geocon Inland Empire Inc., *Twenty Acre Addition to Deutsch Banning Property, Due Diligence Geotechnical and Geologic Review*, September 7, 2006.
- Geocon Inland Empire, Inc., *Deutsch Banning Property Scoping Study*, May 5, 2006.
- Geocon Inland Empire, Inc., *Limited Geotechnical Observation, Proposed Offsite Sewer, Water, and Recycled Water Improvements Associated with Butterfield Property*, December 11, 2007.
- Geoscience Support Services, Inc., *City of Banning Draft 2010 Urban Water Management Plan*, May 2011.
- Geoscience Support Services, Inc., *City of Banning Maximum Perennial Yield Estimates for the Banning and Cabazon Storage Units, and Available Water Supply from the Beaumont Basin*, May 2011.
- Geoscience Support Services Inc., *Preliminary Geohydrologic Evaluation of Artificial Recharge Potential – Proposed Butterfield Development, Banning, CA*. pp.8, February 28, 2007.
- Glen Lukos Associates, *Jurisdictional Delineation of the 1,543-Acre Butterfield Specific Plan Development Project*, August 31, 2010.
- Glenn Lukos Associates, *Conceptual Mitigation and Monitoring Plan for Impacts to Areas within the Jurisdiction of the United States Army Corps of Engineers*, February 15, 2006.

- Glenn Lukos Associates, *Section 1602 Streambed Alteration Agreement*, February 28, 2006.
- Glenn Lukos Associates, *Section 401 Water Quality Certification Application*, February 28, 2006.
- Glenn Lukos Associates, *Pre-Construction Notification for Unavoidable Permanent Impacts and Temporary Impacts to USACOE Jurisdictional Waters*, February 28, 2006.
- Google Earth 2010
- Harris, C, *Handbook of Noise Control*, 1979.
- IBC, *Seismic Use Groups, Table 1-1*, September 30, 1999. Accessed 4 October 2010.
<http://www.tpub.com/content/UFC1/ufc_3_330_03a/ufc_3_330_03a0012.htm>
- Institute of Transportation Engineers, *Trip Generation Manual*,, 2003.
- Intergovernmental Panel on Climate Change, *The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the IPCC*, 1996.
- Intergovernmental Panel on Climate Change, *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, 2007.
- Intergovernmental Panel on Climate Change, *Climate Change 2001- The Scientific Basis*, 2001
- Laurin Associates, *City of Banning General Plan Housing Element Update 2008, 1998 City of Banning Housing Element Housing Needs Assessment*, 2008.
- LSA Associates, Inc., *Cultural Resource Assessment and Historic Evaluations*, April 12, 2006.
- LSA Associates, Inc., *Cultural Resource Assessment, 21-Acre Addition to the Butterfield Ranch Specific Plan*, December 19, 2007.
- LSA Associates, Inc. *Cultural Resources Assessment, Butterfield Ranch Specific Plan Offsite Infrastructure*, December 11, 2007.
- LSA Associates, Inc., *Paleontological Resources Assessment*, April 10, 2006.
- LSA Associates, Inc., *Paleontological Resources Assessment, 21-Acre Addition to the Butterfield Ranch Specific Plan*, December 19, 2007.
- LSA Associates, Inc., *Paleontological Resources Assessment – Butterfield Ranch Specific Plan Off-site Infrastructure*, December 19, 2007.
- LSA Associates, Inc. *Paleontological Resources Assessment, Butterfield Ranch Specific Plan Offsite Infrastructure*, December 19, 2007.
- LSA Associates, Inc., *Butterfield Specific Plan Traffic Impact Analysis*, 23 December 2010.
- Meehl, G.A.; T.F. Stocker; W.D. Collins; P. Friedlingstein; A.T. Gaye; J.M. Gregory; A. Kitoh; R. Knutti; J.M. Murphy; A. Noda; S.C.B. Raper; I.G. Watterson; A.J. Weaver; and Z.-C. Zhao, *Global Climate Projections, Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, 2007.
- National Park Service, *Natural Register of Historic Places*. Accessed January 2007.
<<http://www.nps.gov/nr/about.htm>>
- Natural Resource Consultants, *Methods, Results and Conclusions of Protocol Burrowing Owl Surveys Within the Approximately 1,530-acre Butterfield Site*, March 27, 2007.
- Natural Resource Consultants, *Biological Resources Assessment of the 1,543-Acre Butterfield Specific Plan Area*, September 9, 2010.

- Natural Resource Consultants, *Biological Resources Evaluation of an Approximately 19-acre Proposed Addition to the Butterfield Site*, March 9, 2007.
- Office of the Governor, *Press Release: Governor Schwarzenegger Advances State's Renewable Energy Development*, November 17, 2008. Accessed 1 July 2009.
<<http://gov.ca.gov/press-release/11073/>>
- Riverside County Center for Demographic Research (2020 and 2035) WRCOG Projections for Populations, Housing and Employment, 4/08/2010.
- Riverside County Center for Demographic Research, WRCOG Long-range Growth Forecast, 4/08/2010
- RBF Consulting, *Butterfield Specific Plan (Amendment of the Previously Adopted Deutsch Property Specific Plan)*. May 2011.
- RBF Consulting, *Banning/ Deutsch Property Backbone Drainage Study*, August 2006.
- San Geronio Pass Water Agency, 2009, *EBX*. Accessed 29 July 2010.
<<http://www.sgpwa.com/>>
- San Timoteo Watershed Management Authority, Case No. RIC 389197, *Stipulation for Entry of Judgment Adjudicating Groundwater Rights in the Beaumont Basin*, Exhibit C, June 11, 2003
- Sierra Research Inc., *Emissions from Diesel-Fueled Non-Road Equipment in California*, April 19, 2010.
- South Coast Air Quality Management District, *CEQA Air Quality Handbook*, page 6-1, April 1993.
- South Coast Air Quality Management District, *CEQA Air Quality Handbook*, Table A9-11, November 1993.
- South Coast Air Quality Management District, *The 2007 Air Quality Management Plan for the South Coast Air Basin*, 2007. Accessed 25 August 2010.
<<http://www.aqmd.gov/aqmp/07aqmp/07AQMP.html>>
- South Coast Air Quality Management District, *Guidance Document of addressing for Addressing Air Quality Issues in General Plans and Local Planning*, May 6, 2005.
- South Coast Air Quality Management District, August 27, 2008, *Greenhouse Gas CEQA Significance Threshold: Significance Threshold Stakeholder Working Group #5*. Accessed 23 October 2008. <<http://www.aqmd.gov/ceqa/handbook/GHG/aug27mtg/ghgmtg5.pdf>>
- South Coast Air Quality Management District. Accessed 25 August 2010
<<http://www.aqmd.gov/>>
- Southern California Association of Governments. *City of Banning, CA information*. Accessed 25 August 2010. <<http://www.scag.ca.gov/>>
- Southern California Association of Governments, *Compass Blueprint*.
<<http://www.compassblueprint.org/about>>
- Southern California Association of Governments, *Final Regional Housing Needs Allocation Plan*, January 2006 – June 2014. <<http://scag.ca.gov/housing/rhna/index.htm>>, Final RHNA Allocation.>
- Southern California Association of Governments, *HUD Income Limits*, 2007.
- Southern California Association of Governments, *Regional Transportation Plan*, 2008.
- Southern California Association of Governments, *Regional Comprehensive Plan*, 2008.
<http://www.scag.ca.gov/rcp/index.htm>

- Southern California Association of Governments, *SCAG 2012 Local Input (General Plan) Forecasts for 2012 RTP*.
- Southern California Earthquake Data Center, *Banning Fault Zone*, Accessed 12 August 2010.
<http://www.data.scec.org/fault_index/banning.html>
- Southern California Edison Website. Accessed on 19 February 2009.
< <http://www.sce.com/PowerandEnvironment/Renewables/>>
- The Weather Channel, *Average Weather for Banning, CA*. Accessed 27 July 2010.
<http://www.weather.com/outlook/health/airquality/wxclimatology/monthly/graph/USCA0066>
- Tracy, M. [Correspondence] Riverside County Office of the Agricultural Commissioner.
- U.S. Census Bureau, *2000 Census*, Accessed October 2010. <www.census.gov>.
- United States Department of Housing and Urban Development, *The Noise Guidebook*, p.14
- United States Department of Housing and Urban Development, *HUD Income Limits 2010 for the Riverside/San Bernardino/Ontario MSA*. Accessed 6 October 2010.
<http://www.huduser.org/portal/datasets/il/il2010/2010summary.odn?inputname=METRO40140M40140*Riverside-San+Bernardino-Ontario%2C+CA+MSA&selection_type=hmfa&year=2010>
- United States Department of Transportation, Federal Transit Administration, *Noise and Vibration Impact Assessment, Chapters 8 and 12*, April 1995.
- US DOT, PHMSA, PIPA Discussion, *Risk Informed Land Use Planning*, 2009. Accessed 28 September, 2010.
<<http://primis.phmsa.dot.gov/comm/publications/FamiliarizationMaterial-RiskInformedLandUseDecisions-Edited-20090501-hmw.pdf?nocache=1228>>
- United States Energy Information Administration, *Domestic Electricity Emissions Factors 1999-2002*.
- United States Environmental Protection Agency, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990 to 2004*. Accessed April 2006.
<<http://www.epa.gov/climatechange/emissions/usinventoryreport.html>>
- United States Environmental Protection Agency, *High GWP Gases and Climate Change*. Accessed 19 October 2006. < <http://www.epa.gov/highgwp/scientific.html#pfc>>
- United States Environmental protection Agency, *Protection of Stratospheric Ozone: Listing of Global Warming Potential for Ozone Depleting Substances*. Accessed 7 November 2006.
<<http://www.epa.gov/EPA-AIR/1996/January/Day-19/pr-372.html>>
- United States Environmental Protection Agency, *Class I Ozone Depleting Substances*. Accessed 7 March 2006. < <http://www.epa.gov/ozone/ods.html>>
- United States Geological Survey and San Geronio Pass Water Agency, *Geology, Groundwater Hydrology, Geochemistry, and Groundwater Simulation of the Beaumont and Banning Storage Units, San Geronio Pass Area, Riverside County, California*. Scientific Investigations Report 2006-5026, 2006. Accessed 27 July 2010.
<http://pubs.usgs.gov/sir/2006/5026/pdf/sir_2006-5026.pdf>
- United States Geological Survey Western Region Geology and Geophysics Science Center, Western Surface Processes Team, *San Andreas Fault System in the Inland Empire and Salton*

Trough, Banning Fault, pp 1-8. Accessed 16 July 2010.
<http://geomaps.wr.usgs.gov/socal/geology/inland_Empire/ie_banning_fault.htm,>
University of California Davis, Agricultural Issues Center, August 2009, *The Measure of California Agriculture*. Accessed 28 June 2010. <<http://aic.ucdavis.edu/publications>>
Western Riverside Council of Governments, *Riverside County Progress Report*, 2009.
Wildermuth Environmental Inc., 2005 *City of Banning Urban Water Management Plan*, Accessed 29 July 2010. <<http://banning.ca.us/DocumentView.aspx?DID=20>>. pp.2-8, December 2005.
Wikia Science, *Pleistocene*, <<http://paleontology.wikia.com/wiki/Pleistocene>>.